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**NUCLEAR REGULATORY COMMISSION**

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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OFFICE OF NUCLEAR REACTOR REGULATION

OFFICE OF NEW REACTORS

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

+ + + + +

PUBLIC MEETING ON DRAFT RIS

DISPOSITION OF INFORMATION RELATED TO THE TIME

PERIOD THAT SAFETY-RELATED SSCs ARE INSTALLED

+ + + + +

WEDNESDAY

JANUARY 20, 2016

+ + + + +

ROCKVILLE, MARYLAND

+ + + + +

The Public Meeting convened at the Nuclear Regulatory Commission, Two White Flint North, Room T3B45, 11545 Rockville Pike, at 1:30 p.m., Harold Chernoff, facilitator, presiding.

PRESENT:

HAROLD CHERNOFF, NRR/DIRS

DENNIS MOREY, NRR/DLR

SCOTT MORRIS, NRR/DIRS

CATY NOLAN, NRR/DIRS

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KEN O'BRIEN, Region III

ALEXANDRA POPOVA, NRR/DPR, Facilitator

JESSE ROBLES, NRR/DIRS

SHELDON STUCHELL, NRR/DPR

ERIC THOMAS, NRR/DIRS

JOHN THOMPSON, NRR/DIRS

ALSO PRESENT:

DAVID LOCHBAUM, Union of Concerned Scientists

VINCENT BACANSKAS, Entergy\*

KELLY BAKER, DC Cook\*

STEVE FRANTZ, Morgan, Lewis & Bockius\*

SAM HARVEY, EPRI

FRED MASHBURN, TVA

STEPHEN MEYERS, STARS/Ameren

BRUCE MONTGOMERY, NEI

MARTY MURPHY, Xcel Energy

JOHN PFABE

JOHN SAMS, Ontario Power Generation\*

RICK WEINACHT, Curtiss-Wright Corporation\*

\*Present via telephone

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## P R O C E E D I N G S

1:34 p.m.

MS. POPOVA: Okay, good afternoon.

First, I'd like to thank everybody for attending this meeting.

My name is Alexandra Popova and I am the Lead Project Manager for this issue in the Office of Nuclear Reactor Regulation.

So, we're here today to discuss the disposition of information related to the time period that safety-related structure systems and components are installed.

Before we start the meeting, I'm going to cover a couple of administrative topics.

For security purposes, NRC policy dictates that visitors to the Agency are required to wear and display their badges as well as be escorted at all times while within NRC controlled space.

If you are not an NRC employee, you must be escorted at all times once you enter the elevator lobby on the first floor.

Therefore, if you need to leave the room for any reason, please ensure that an NRC employee is with you.

So, there's a couple of NRC employees who

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1 are raising their hands right now and, if you need to  
2 leave the room for any reason, just grab one of them.

3 We'll make arrangements at the end of the  
4 meeting to have NRC employees escort you back to the  
5 elevator lobby on the first floor or to the bathrooms  
6 on this floor.

7 We also plan to take a break about an into  
8 the meeting.

9 Please turn off or silence all your cell  
10 phones during the meeting as a courtesy.

11 Also, for people that are at the round, so  
12 that's these tables here, the mics are always on, so  
13 if you want to mute them, you have to push the button  
14 that says push. Yes, so you have to hold it and that's  
15 how it's muted otherwise, it's always on.

16 So, there is an attendants list that is in  
17 the middle before the pews as well as one that should  
18 be circulating the round. Please fill out the  
19 information and pass the list along.

20 Once the lists are completed, please pass  
21 them back to me. Or just leave them in front of the  
22 pews.

23 For those who are participating on the  
24 phone, please send an email to axpl6, so that's A-X as  
25 in x-ray, P as in Papa, 16 at nrc.gov. My email is also

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1 listed on the Public Meeting Notice.

2 I will reply to your email with the meeting  
3 summary and the slides.

4 The list of the attendees and the phone  
5 participants will become part of the meeting summary  
6 and that will be made publically available.

7 Okay, so the purpose of this meeting is to  
8 allow for open discussion between external  
9 stakeholders and the NRC regarding components that are  
10 installed past their time period.

11 NRC staff is developing a RIS to reiterate  
12 existing requirements related to dispositioning  
13 information pertaining to the capability of  
14 safety-related structure systems and components to  
15 perform the safety-related functions in nuclear power  
16 plants.

17 Once developed and aligned internally, the  
18 draft RIS will be posted in the Federal Register and  
19 open for comments. Please submit all formal comments  
20 through the Federal Register.

21 Once the public comment period closes, the  
22 NRC staff will review and disposition all formal  
23 comments received through the Federal Register.

24 Submitting comments can be done by  
25 searching for the draft RIS on [www.regulations.gov](http://www.regulations.gov).

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1           This is a Category 3 Public Meeting which  
2 allows the public to participate in the meeting by  
3 providing comments and asking questions throughout.

4           Please state your name and company before  
5 speaking since this meeting is being recorded.

6           This meeting will not decide any Agency or  
7 staff positions and it will not interpret regulations  
8 other than what is current established by guidance or  
9 staff position.

10           No decisions regarding this draft RIS will  
11 be made at the meeting.

12           During the question portion of the  
13 meeting, I will first take questions here at  
14 Headquarters and then go to the phones.

15           So, if you are on the GoTo Meeting and have  
16 a question or would like to discuss, please send me a  
17 message and that way, I can queue you.

18           This is a two hour meeting scheduled from  
19 1:30 to 3:30 p.m.

20           For those who desire to provide feedback  
21 about the public meeting process, please email me.  
22 Again, my email address is axp16@nrc.gov.

23           I welcome the participants on the phone and  
24 ask that they keep their phones on mute except to  
25 discuss issues.

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1           To place the phone on mute, press star six  
2           and star six again to unmute.

3           We understand difficulties encountered  
4           when listening by phone. By muting the phones, it will  
5           minimize the noise heard by all.

6           I'd like to open the meeting with  
7           introductions. We will first do introductions here at  
8           Headquarters and then move to the phones.

9           Actually, no, correction, due to the large  
10          number of participants on the phones, we are only going  
11          to do introductions here at Headquarters. And, we will  
12          be doing introductions just in the round.

13          As we go around the room, please be sure  
14          to clearly state your name, your position, your company  
15          and, for NRC staff, the office that you work for in the  
16          NRC.

17          So, I'll start off. Once again, I'm  
18          Alexandra Popova, Lead Project Manager for this issue.  
19          I'm in the General Communications Branch in the Office  
20          of Nuclear Reactor Regulation.

21          MR. O'BRIEN: I'm Ken O'Brien. I'm the  
22          Director of the Division of Reactor Safety for Region  
23          III.

24          MR. MORRIS: I'm Scott Morris. I'm the  
25          Director of the Division of Inspection and Regional

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1 Support in NRC Headquarters.

2 MR. CHERNOFF: Harold Chernoff, I'm the  
3 Chief Operating Experience Branch in NRR. And, I would  
4 just add, the microphones at the tables are  
5 directional, so you need to be within about 6 to 12  
6 inches or the people on the phone won't be able to pick  
7 it up.

8 MR. THOMPSON: John Thompson, Lead  
9 Technical Contact for this RIS, Operating Experience  
10 Branch, NRC.

11 MR. MASHBURN: I'm Fred Mashburn,  
12 Corporate Licensing, TVA.

13 MR. LOCHBAUM: Dave Lochbaum, Director of  
14 the Nuclear Safety Project for the Union of Concerned  
15 Scientists.

16 MR. MEYERS: Steve Meyers, STARS  
17 Alliance.

18 MR. MURPHY: Marty Murphy, Director of  
19 Regulatory Affairs for Xcel Energy.

20 MR. MONTGOMERY: Bruce Montgomery,  
21 Nuclear Energy Institute.

22 MR. HARVEY: Sam Harvey, Principle  
23 Technical Leader for Electric Power Research  
24 Institute.

25 MR. MOREY: Dennis Morey, I'm Chief of the

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1 Reactor Systems Branch in Division of License Renewal  
2 at the NRC.

3 MR. STUCHELL: Sheldon Stuchell, Chief of  
4 the Generic Communications Branch.

5 MS. POPOVA: Okay. Scott, would you like  
6 to provide some opening remarks?

7 MR. MORRIS: Yes, I'll just make a few --  
8 a couple of opening remarks and we'll turn it over to  
9 Harold and we'll just right in.

10 So, obviously, welcome everybody here.  
11 I'm, I guess, a little surprised at the quantity of  
12 folks who have come to the meeting and are on the phone.  
13 But, I guess that's a good thing. There's an interest  
14 in what we do and why we do it. So, we're looking  
15 forward to a good exchange here today.

16 Clearly, our goal, our main goal here is  
17 to listen to your feedback, comments, concerns or other  
18 thoughts on the draft Regulatory Information Summary  
19 that we attached to the Meeting Notice for this  
20 particular meeting.

21 There's a fairly substantial history  
22 associated with the rationale for developing this RIS.  
23 Some of you know what that is. Some of you know that  
24 history, some of you don't. I think Harold's going to  
25 touch on a little bit of that just to make sure everybody

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1 has a common understanding of the real reason we're here  
2 today, what brought us to this point today.

3 But, yes, I'm looking forward to a good  
4 exchange. It is a Category 3 Meeting, as Alex  
5 mentioned. So, we look forward to comments, not just  
6 from the industry, but also from members of the public,  
7 including UCS and any others.

8 So, if you feel like at some point you want  
9 to make a comment, you know, please alert us and we'll  
10 give you the opportunity to express that.

11 So, with that, I'm going to shut up and hand  
12 it off to Harold and let's move this forward.

13 MR. CHERNOFF: Again, the thanks for the  
14 opportunity to talk. We often don't get enough time  
15 to sit across the table in a room and listen. And,  
16 that's what we're going to be doing mostly as far as  
17 NRC staff. Our intent here is to listen and make sure  
18 we understand what your comments, what feedback various  
19 people have. That's our purpose.

20 We're not here to debate or espouse our  
21 beliefs. We want to hear from the people in the room  
22 that we don't work with on a day to day basis.

23 With regard to background, we have just a  
24 half dozen overview slides that we'll go through and  
25 then we'll open it up into the real purpose, which is

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1 to get some information from the folks in the room.

2 In the Operating Experience Branch, one of  
3 the things we're tasked with is to look at large and  
4 small trends and activities in both events and  
5 regulatory actions, findings, enforcement, et cetera.

6 And, we launched into a couple of years  
7 ago, almost three years ago now, we produced a study  
8 that actually was a follow on to some other activities  
9 we had done related to implementation and vendor  
10 recommendations at the plants.

11 And, in this case, we were looking and  
12 found what we saw as a small increasing trend in  
13 findings and Licensee Event Reports involving  
14 age-related issues and failures of equipment in the  
15 field, safety-related SSCs.

16 And, the data actually shows a break over  
17 point of things that had been in the field more than  
18 15 years. And, just simply, there were about 17 of  
19 these type of events in 2009 and, by 2012 we'd seen an  
20 increase to about 32. And, it's a mixed set of data.  
21 It's not all Licensee Event Reports, it's not all  
22 findings.

23 Overall, the percentage of findings  
24 attributed to these kind of things was pretty small.  
25 It was about two percent of overall findings.

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1           Most of the examples that we saw related  
2 to, as you might suspect, to electrical subcomponents,  
3 be that cards, relays, breakers, power supplies, et  
4 cetera.

5           MR. MORRIS: Are you on a different slide?

6           MR. CHERNOFF: No.

7           MR. MORRIS: Just checking.

8           MR. CHERNOFF: Yes, you want to advance --  
9 let's go two slides I think will get us -- thank you,  
10 guys.

11          MR. MORRIS: Just trying to help you out.

12          MR. CHERNOFF: I know. This is preamble  
13 to this.

14                 So, in looking at that and we also saw that  
15 the cause was varied. There were a number of -- there  
16 was no single smoking causal factor that we saw. There  
17 were some issues regarding keeping abreast of operating  
18 experience. There were issues regarding  
19 performance-based monitoring. And there were some  
20 event issues where maybe a maintenance rule  
21 miscategorization had led to the finding or the  
22 incident.

23                 There were also a variety of, for the ones  
24 that were findings, a regulatory basis for those  
25 findings.

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1           This led us, as one of our actions, we had  
2 a number of actions out of the study that, internally,  
3 we were taking including ones focused on staff and how  
4 staff was doing oversight focus in this area.

5           But, one of the other ones that we felt was  
6 important was to take the opportunity to communicate  
7 out what we saw.

8           The study was made publically available  
9 back in 2012 or 2013, so it's in public ADAMS and I  
10 believe it was attached to the Meeting Notice for this  
11 meeting.

12           But, in looking at, is there a need to  
13 communicate something a little broader? We felt there  
14 was and that is the purpose of the draft RIS which is  
15 to discuss disposition, as the slide shows, of  
16 information related to how long safety-relates SSCs are  
17 installed.

18           And, there's a careful wording there, it's  
19 to discuss the disposition of the information, okay,  
20 how you go about doing it, what the processes are.

21           And, to reiterate responsibility of  
22 licensee's to maintain SSC structure systems  
23 components ability to perform their safety-related  
24 functions. And, I'm going to emphasize safety-related  
25 functions here.

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1 So, can we go to the next slide, please?

2 So, these are the main points that I hit.

3 We had the study. We saw a slight trend. We're not  
4 talking about, you know, stoke your mattress,  
5 statistics breakdowns, we're talking about judgment  
6 calls regarding small sets of data. Okay?

7 And, we felt there was additional focus  
8 needed both within the staff and from industry  
9 perspectives.

10 Next slide, please?

11 This is a very short list of what would  
12 likely be a fairly long list if we tried to list out  
13 all the regulatory requirements that have some kind of  
14 a juncture or intersection with this activity.

15 But, these are probably the more  
16 significant ones. The NRC Approved Quality Assurance  
17 Program that each operating reactor has. Their  
18 technical specifications, and particularly within  
19 their technical specification their administrative  
20 section regarding procedures and establishment of  
21 procedures in accordance with Reg Guide 133.

22 And also, of course, the maintenance rule  
23 which is the performance-based aspect to the  
24 regulations for equipment monitoring and control.

25 Next slide, please?

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1           Okay, I spoke a little bit about  
2 enforcement history. And, to be very straightforward,  
3 we have a number of examples of findings and they vary.  
4 And, how they are written up, the action that we took,  
5 also varies.

6           And, this is very typical of our ROP  
7 Program. We try to write findings close to the nexus  
8 of what we feel that the main issue is.

9           So, in one case, a problem might be written  
10 up as a failure to follow or failure to comply with Tech  
11 Spec 5.4.1 Procedures where there this procedure that's  
12 been established but it wasn't followed.

13           On the contrary, at some case, a finding  
14 might have been written up under design criteria  
15 because there was not an application of either design  
16 criteria or maybe establishment of procedures. There  
17 were no procedures written.

18           And, one of the complexities is, I don't  
19 think we have -- we've come to the consensus that there  
20 is no single formulaic way to address this issue because  
21 it's about how you disposition information that you get  
22 and that you see at the plant.

23           So, from an enforcement point of view, we  
24 have a number of findings. There were, John, how many  
25 in the overall study roughly?

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1 MR. THOMPSON: Hundred and five.

2 MR. CHERNOFF: A 105 within the scope of  
3 the study that were cited and there's a pretty good  
4 variability about what specific findings were tied to  
5 from a regulatory perspective.

6 Well, I think that's -- okay, that's the  
7 very brief introductory remarks.

8 Now, a couple of other items. Really  
9 appreciate everybody staying within the spirit of the  
10 meeting and speaking to the draft document in front of  
11 us.

12 There are a lot of ancillary related  
13 things. We're really not here to get into those in  
14 detail. So, what we're focused on is any comments,  
15 thoughts, perspectives on the draft document that was  
16 sent out. That's our primary purpose and appreciate  
17 it if we can help do that. And, the focus is on external  
18 stakeholders.

19 So, with that --

20 MR. MORRIS: Well, if I could just add to  
21 that?

22 MR. CHERNOFF: Yes.

23 MR. MORRIS: It's not -- just to echo a  
24 little bit and maybe clarify a little bit what Harold  
25 just said.

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1           It's -- we're interested in feedback on  
2 what we've provided in the draft Regulatory Information  
3 Summary, both what is in there and what may not be in  
4 there that you think should be in there. So, it's both  
5 of those things.

6           MR. CHERNOFF: Thank you. Good point,  
7 good point.

8           With that, if there are any questions about  
9 logistics before we get started and open it up for  
10 comment? Yes, Dave? Dave Lochbaum, please?

11           Just to reemphasize, when you speak,  
12 please identify yourself and affiliation so that people  
13 on the phone --

14           MR. LOCHBAUM: Dave Lochbaum, Union of  
15 Concerned Scientists.

16           I have a request. The TIA that's  
17 mentioned is not publically available. I'm not sure  
18 exactly how NEI spoke so eloquently about a nonpublic  
19 document. But, could that document, ML-15127A569, be  
20 made publically available?

21           MR. O'BRIEN: This is Ken O'Brien with  
22 Region III.

23           We originally did that TIA and I don't  
24 recall if we made that publically available when we  
25 finished it. We subsequently withdrew that TIA in the

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1       guise of finishing this issue from a generic  
2       standpoint.

3               I'm not sure there's anything that  
4       precludes us from putting it out there. It could  
5       confuse us a little bit because that same sort of  
6       information's in the RIS right now and it was focused  
7       on a single issue at a plant, specific plant, so it's  
8       more localized than I think we're trying to talk here.

9               MR. CHERNOFF: Is it okay to say that we'll  
10       take a look and make it publically available?

11              MR. O'BRIEN: Yes, yes, I think that's  
12       what I said but maybe not as clearly.

13              MR. CHERNOFF: Yes.

14              MR. MORRIS: It's nothing magic, it was  
15       like a process issue -- this is Scott Morris -- process  
16       issue. We withdrew the TIA, so we took it off the  
17       website.

18              We withdrew the TIA in lieu of -- the TIA,  
19       as Ken pointed out, are done a retail site by site basis  
20       whereas RIS is a wholesale generic basis. So, we  
21       pulled the TIA in lieu of a RIS.

22              Yes, there's nothing we can --

23              MR. CHERNOFF: We'll look at making that  
24       happen. Thank you.

25              MR. O'BRIEN: I don't see anything to stop

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1 us from that.

2 MR. MURPHY: This is Marty Murphy.

3 If -- Xcel Energy -- if you do make that  
4 publically available again, will you make it clear it  
5 has been withdrawn?

6 MR. O'BRIEN: Oh, yes.

7 MR. MORRIS: Sure.

8 MR. O'BRIEN: Withdrawn, by the way,  
9 doesn't change the aspect of it. As I said, we withdrew  
10 it, not because there was anything in there we thought  
11 was wrong, but instead, because we were looking it more  
12 holistically.

13 MR. LOCHBAUM: Understood.

14 MR. MONTGOMERY: Yes, this is Bruce  
15 Montgomery, Nuclear Energy Institute.

16 I'll open by just saying, I appreciate the  
17 opportunity to discuss this draft RIS.

18 We have a number of questions and probably  
19 some comments that we'd like to make. And, in a process  
20 of doing that, we're really just seeking to clarify our  
21 understanding of what this RIS is communicating to us.

22 We do note a significant difference  
23 between that TIA we were just discussing in terms of  
24 the level of detail of information and positions taken  
25 and this draft RIS.

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1           So, in our minds, we're trying to make sure  
2 we understand that we, you know, what's the difference  
3 between the two documents? And, exactly what is the  
4 staff trying to communicate to the industry?

5           So, from our perspective, we have Steve  
6 Meyers from Ameren, a STARS organization who's going  
7 to be our spokesperson. He was the primary author of  
8 the industry paper that was submitted October 20th.

9           So, we'll start the questioning, just in  
10 terms of trying to understand the staff's position  
11 relative to what you were talking about, Harold, which  
12 is the different citations and the bases for the  
13 citations, they do vary.

14           We have some specific concerns or  
15 questions about some of those citations that we'd like  
16 to talk about today. So, I'll turn it over to Steve.

17           MR. MEYERS: Okay, thanks. Steve Meyers,  
18 STARS Alliance again.

19           Harold, I wanted to ask you, and I  
20 appreciate your introductory comments, and we note that  
21 there's a number of CFRs cited.

22           But, I didn't hear you discuss the  
23 regulatory gap. You talked about the performance  
24 issues and some trends that you noticed. But, when we  
25 look at the paper, we're not seeing what the specific

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1 regulatory gap is, whether, for example, it would be  
2 against the implementation of the quality assurance  
3 programs or actual regulations.

4 And, if there's some weakness in the  
5 implementation of those programs versus the findings  
6 on the specific components? Or if there's some more  
7 important theme in public health and safety with the  
8 findings that you've seen?

9 MR. CHERNOFF: Harold Chernoff.

10 What we are trying to get across, quite  
11 simply, in the RIS is, again, not statistically  
12 significant, however, we saw a small trend and we think  
13 additional focus and attention is warranted.

14 And, to be very clear, in the RIS, we tried  
15 to be very clear in the RIS that we were not saying,  
16 of course, it would be inappropriate in a RIS to say  
17 that you needed to establish any kind of new program  
18 or process. We are not doing that.

19 What we are trying to say is, in some cases  
20 as evidenced by the findings and the dockets, the  
21 individual dockets, there have been deficiencies  
22 identified in the implementation of plants existing  
23 programs.

24 And, those things have manifested  
25 themselves in some preventable equipment failures or

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1 actual, you know, failures in process.

2 So, we don't have a specific regulatory  
3 gap, per se. We have, I would characterize more of a  
4 noted unlevelness in implementation in some cases.

5 And, what we want to make sure is that more  
6 than just the plants that may have been affected by an  
7 individual finding or made aware of this and they can  
8 share it and inculcate it in their activities through  
9 their -- through the plant's operating experience  
10 program which will be the way most of the people would  
11 bring in the RIS and get with the RIS.

12 Did I answer your question?

13 MR. MEYERS: Yes, I think so.

14 I have a follow on question with that.

15 MR. CHERNOFF: Sure.

16 MR. MEYERS: The examples you gave there  
17 of the credible, or what I believe is the credible  
18 information that you used in the RIS to describe these  
19 findings, the failures of equipment, the items that you  
20 just discussed, is that what you really intend the  
21 credible information to the scope to include or it  
22 broader than that?

23 MR. CHERNOFF: Well, we don't have a -- we  
24 can't give you a perfect definition of what credible  
25 means. I think you know that.

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1           What we mean is apply reasonable judgment  
2 as professionals to the information source and the  
3 information content and act in a responsible manner  
4 with that information.

5           And, I know that's a lot of generalities,  
6 but it's very difficult to be more specific because you  
7 may get information from a fellow licensee, a fellow  
8 license member of your fleet. You might get  
9 information from a manufacturer. You might get  
10 information from industry organizations like INPO or  
11 WANO.

12           Some people, you know, might even take  
13 internal actions based on things from trade  
14 information, industry trade information.

15           All of those could be -- we are not going  
16 to try to judge credible. It's really the licensee's  
17 responsibility.

18           You know, if you want to go back into the  
19 history, this is really kind of the root of operating  
20 experience was to not inundate the staff with  
21 everything but to sort out the chaff from the more  
22 meaningful information and take appropriate action on  
23 the more meaningful information.

24           MR. MEYERS: I'm going to ask -- I'll turn  
25 this over to somebody else, but I could just follow on

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1 with that.

2 Generic Letter 83-78 is referenced which,  
3 I think, we typically think of in terms of establishing  
4 communications with your suppliers and receiving that  
5 information and evaluating it.

6 But, it sounds like your scope of what you  
7 just discussed is broader, quite a bit broader than that  
8 to include OE, things from INPO and so forth to be  
9 informed.

10 MR. CHERNOFF: As possible sources of what  
11 we would call credible information.

12 And, please, feel free, maybe there's a  
13 better use of terminology than credible information.  
14 That's what we came up with.

15 Yes?

16 MR. MEYERS: Yes, when I read the paper,  
17 what stood out to me as credible information, to me,  
18 was discernable as information that was received from  
19 a supplier subsequent to your initial procurement  
20 documentation that, for example, provided your vendor  
21 maintenance instructions and so forth, that would  
22 provide some type of a technical condition that was  
23 previously unknown.

24 I didn't really read this to include the  
25 other broad terms of OE you discussed because we have

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1 other programs for those.

2 So, all right, I'll let somebody else go.

3 MR. CHERNOFF: Understood.

4 MR. MONTGOMERY: Harold, Bruce  
5 Montgomery.

6 Back on the discussion of the performance  
7 gap where you indicated a slight increase in trend and  
8 findings, you know, I would just observe, as you do,  
9 I'm sure, that there's a difference between the number  
10 of findings that are cited in the actual safety  
11 performance of systems.

12 MR. CHERNOFF: Sure.

13 MR. MONTGOMERY: So, could you talk a  
14 little bit about what information you have that  
15 specifically to the failure rates that you -- or trend  
16 in failure rates in safety-related equipment over the  
17 past several years?

18 MR. CHERNOFF: I'm not sure we're prepared  
19 to talk about that beyond what's in the study. We could  
20 recount a little bit of what was in the study. Is that  
21 what you're asking for?

22 MR. MONTGOMERY: It is.

23 MR. CHERNOFF: Okay. John, do you want to  
24 try to address that a little bit?

25 MR. THOMPSON: Well, we're talking with a

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1 small data set. I mean, over the five years that the  
2 study looked at information, we had 77 inspection  
3 findings.

4 Approximately a third to a half of those  
5 involved failures. The other half did not involve  
6 failures. We weren't really focused on the failure  
7 rate in the study.

8 What we were focused on was time. How long  
9 a component, safety-related component, had been  
10 installed and, specifically, beyond what some  
11 analysis, whether that is vendor information, plant  
12 information or information from elsewhere.

13 We were interested in age, how long it had  
14 been installed. Sometimes that age length resulted  
15 directly in the failure. Sometimes it was the  
16 realization that it had been installed longer than  
17 desired by plant documentation.

18 So, that's the data set. We weren't  
19 looking for a failure trend.

20 MR. MONTGOMERY: Thank you for that.

21 A couple of points that I'd like to make  
22 is it's before we came to this meeting, we pulled some  
23 information from the Institute of Nuclear Power  
24 Operations with regard to the trends of failures and  
25 key safety systems for pressurized and boiling water

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1 reactors over the past several years and found that the  
2 failure rates in all of those key systems was very flat,  
3 for all causes, if not evidencing a slight improvement  
4 in performance.

5 The past key factors hit a record 2015 for  
6 the plants to 91.8 percent capacity factor reflecting  
7 the plants were running very well, doesn't directly  
8 correlate to safety system performance, but that's a  
9 piece of it.

10 I'd also like to comment that one of the  
11 examples, in fact, I think the key example provided on  
12 page two of the RIS which talks about that diesel  
13 failure at one of my former plants.

14 This is Dual Unit failure where there's a  
15 failure of a diesel to start and run is attributed to  
16 a failure of Agastat relay.

17 Now, I would admit that the first root  
18 cause analysis that we performed did attribute failure  
19 of that Agastat relay to a performance function. Upon  
20 further research and evidence, though, after we got the  
21 word back from the forensic review, it was not the  
22 Agastat relay that was the cause, it was the sensing  
23 line to that Agastat relay that was -- had debris in  
24 it that basically caused that Agastat relay not to see  
25 the pressure impulse that it needed to see to do its

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1 job. The Agastat relay was working fine as far as we  
2 could tell.

3 So, we would not think that that example  
4 is appropriate for this RIS and that that Agastat relay  
5 did not fail, as far as we could tell, from age-related  
6 degradation or service life.

7 Even though it was in service longer than  
8 the ten years that the -- we often refer to as a vendor  
9 recommendation for service life.

10 MR. CHERNOFF: Thank you.

11 Let me just make a couple of general  
12 comments.

13 One is, that kind of information is exactly  
14 the kind of feedback we are looking for. So we can --  
15 we'll take this information from this discussion and  
16 I can say without much qualms or reservations, there  
17 will be changes in the document before it's published.

18 That being said, though, I want to make  
19 sure everybody understands, when it is published in the  
20 Federal Register in that form, we do need everybody who  
21 has issues they want to bring to the table to make sure  
22 and put in formal comments.

23 Because this is an informal discussion and  
24 doesn't substitute for the formal comments.

25 MR. MONTGOMERY: Yes, I think a point --

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1 MR. CHERNOFF: I meant to mention that at  
2 the outset but I forgot.

3 MR. MONTGOMERY: I think, you know, it  
4 would add to the RIS if there were examples. I think  
5 one of the things we would like to see are several  
6 examples of not only failures that could be attributed  
7 to this issue, the time the equipment is installed in  
8 the plant and the area within our -- or the program,  
9 if you will, program element whether it be design,  
10 maintenance programs or whatnot that didn't prevent  
11 that failure or where there was a weakness in one of  
12 our programs that would have addressed the issues.

13 So, we have a number of citations we're  
14 looking at right now that you've written up over the  
15 past several -- that the Regions have over the past  
16 several months and we're very interested in the nexus  
17 between --

18 MR. CHERNOFF: Okay. Those are things  
19 that will have to be address on a plant specific basis.  
20 And, that's part of the difference in this document by  
21 some of the things you've seen previously.

22 This is a higher level perspective and, you  
23 know, we are not trying to say that there is an imminent  
24 safety issue, that there's a, you know, you talked about  
25 a performance issues regarding past key factors.

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1           This is to try to draw a focus on things  
2 that are out there and could be done better. That's  
3 really where we're headed.

4           And, if I could at this point maybe, and  
5 we can circle back, but are there people outside of the  
6 NEI STARS that maybe want to -- Dave, do you want to  
7 provide -- Dave Lochbaum, provide some comments?

8           MR. LOCHBAUM: Dave Lochbaum, Union of  
9 Concerned Scientists.

10           I have one question to try to understand  
11 what the RIS is going towards.

12           And, several times it talks about if a  
13 system structure or component has been installed in a  
14 nuclear plant for longer than the amount of time  
15 described, yet, in some of the support documents that  
16 led up to it, there was a talk about somewhat of  
17 shelf-life and an in-service life.

18           Is the RIS mainly focused on how long a  
19 widget is installed or is it also looking at the  
20 shelf-life that may -- precedes that installation time?

21           MR. CHERNOFF: Yes, that's an excellent  
22 question and I think as we refine our discussion, what  
23 we saw is, there are a number of different terms used  
24 throughout the industry and in different standards and  
25 regulatory documents.

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1           And, one of the points of, at least within  
2 the staff, debate and discussion related to, I'll just  
3 call them special terms or defined terms.

4           So, we tried in the document to get away  
5 from using any of the defined terms because we did not  
6 want to exclude or, you know, intentionally exclude  
7 anything because we wanted to be fairly general.

8           What we're really talking about are a  
9 couple of situations where, one, in some limited sets,  
10 there actually is information in the FSAR. There are  
11 not a lot of them, but FSAR level information that talks  
12 about how long something is expected to be in the plant.  
13 Okay?

14           There's the more common situation, much,  
15 much more common situation where either through the  
16 plant's own experience or one of these other sources  
17 we talked about previously, information comes in to the  
18 licensee that might have a negative impact on something  
19 that's in the plant, be it a Part 21 from vendors or  
20 others, et cetera.

21           And, our emphasis in the RIS is both of  
22 those situations need to be looked at and  
23 dispositioned.

24           The program's already out there in the  
25 facilities to do those dispositions. That's -- and

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1 when you start to go to a lower level of detail, more  
2 detail, it becomes quite complex unless you're talking  
3 about one situation.

4 So, if you were to talk about a maintenance  
5 rule criteria situation, that's fairly easy to talk  
6 about in that realm.

7 When you're trying to talk about it more  
8 broadly, it very quickly can become confusing with  
9 regard to the terminology and the limitations of the  
10 individual programs that are out there.

11 There's overlap on these to a fair extent  
12 which is good. And, again, what we're trying to do is  
13 draw people's attention to the need for continued focus  
14 and, for example, not assuming things beyond what you  
15 can evaluate and justify.

16 MR. LOCHBAUM: I do have one follow up.

17 I appreciate that answer. It's helpful.

18 I think the RIS is a good step of balancing  
19 what needs to be done in safety. So, think it's a --  
20 we support the RIS.

21 I think one of the reasons we think the RIS  
22 is important or for the NRC to clarify its expectations  
23 in this area, there are many reasons.

24 I think one of them includes the license  
25 renewal rule that was revised in May 8, 1995, Federal

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1 Register 22461. Reading from the Statements of  
2 Consideration for the rule change, part of that rule  
3 change excluded active components from consideration  
4 under aging management.

5 And, it said, quote, however, the  
6 Commission does not believe that it can generically  
7 exclude structures and components that, and paragraph  
8 two is, are not subject to periodic plant maintenance  
9 or replacement, end quote.

10 You know, conceivably, waiting until  
11 something breaks or run to failure is a scheduled  
12 replacement. You know, that's probably not what was  
13 meant by that.

14 So, if there's a decision that run to  
15 failure is an option, it looks like the license renewal  
16 rule, subsequent license renewal rule, needs to go back  
17 and throw active components back in, if the game plan  
18 is to run to failure as your scheduled replacements  
19 theme.

20 Thanks.

21 MR. CHERNOFF: Thanks, Mr. Lochbaum.

22 I think, in some circumstances, we have  
23 Agency documents that acknowledge that given proper  
24 consideration and evaluation, there are some  
25 components that have a level of significance that would

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1 make run to failure appropriate.

2           However, you know, that's not a default  
3 condition, that's a reasoned end point after review and  
4 is part of the program that the licensees have for  
5 administrative maintenance.

6           So, like many things, it's not a situation  
7 where we can say it's never appropriate or it's always  
8 appropriate. It depends. It depends, obviously, on  
9 the applications and the components involved.

10           MR. LOCHBAUM: I appreciate that  
11 clarification. I think that speaks to -- well, I think  
12 the RIS, the draft RIS, or the proposed draft RIS,  
13 whatever, is so valuable in that it doesn't prescribe  
14 that the service life is the be all and end all.

15           It says if you have an evaluation whether  
16 it's run to failure or whatever, to ensure that that  
17 component doesn't have an unusually high or unduly high  
18 chance of failure, then it's okay.

19           So, I think you spoke to the aspect rule,  
20 we think is a proposed rule, is so good is that it  
21 doesn't assume that this verily you will abide by the  
22 service-life. You just have to have something that  
23 shows that what you are relying on is thoughtful,  
24 considerate and make sure you cover all those bases.

25           MR. CHERNOFF: And the just one more -- the

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1 other aspect of this is, just to be -- maybe anticipate  
2 a couple of questions is, we also very clearly  
3 understand that manufacturers have a multitude of  
4 complex reasons for how they speak to service-life of  
5 something they're selling.

6 They have warranty issues. They have  
7 production issues. They have cost issues. We  
8 understand that.

9 So, there is no automatic because a vendor  
10 says something that that automatically applies to a  
11 plant specific installation. It may not be installed  
12 in the same environment or the reasonable evaluation  
13 might determine that, in the in situ installation, a  
14 longer period of time might be warranted.

15 Again, it depends on the specifics very  
16 much so.

17 MR. HARVEY: Yes, Sam Harvey, Electric  
18 Power Resource Institute.

19 I just want to reinforce that because, in  
20 our preventive maintenance basis database, when we go  
21 through all that process, we find that the vendor  
22 recommendations aren't always technically based.

23 So, that those intervals are not  
24 necessarily always valid on a technical basis.

25 MR. CHERNOFF: Can I ask, in both

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1 directions?

2 MR. HARVEY: With both directions. I  
3 have examples, we just did a service-life evaluation  
4 study for Agastat relays, EGP. And, we took all of them  
5 out of service-life from various utilities that were  
6 in safety-related applications at the ten year interval  
7 recommended by the vendor.

8 Found nothing wrong with them, subject to  
9 accelerated thermal degradation tests, since that's  
10 the primary degradation means, and found that they  
11 would run 20 to 30 years before we had approached the  
12 end of life of those.

13 Contrary to that, electrolytic  
14 capacitors, for example, most vendors are 10 to 12  
15 years. Our evaluation says seven's probably a good  
16 year for replacement.

17 So, it goes both ways.

18 MR. CHERNOFF: Okay. Good point, thank  
19 you.

20 Steve, I interrupted you.

21 MR. MEYERS: That's all right. I have  
22 several things I'd like to comment on.

23 But, I just want to talk a little bit about  
24 use of the EPRI PM Basis Database and as it relates,  
25 John, to some of the findings that you discussed in your

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1 report that half had failures and half had not.

2 I wanted to ask and you can answer, did you  
3 review how licensees had or had not applied that EPRI  
4 PM Basis Database in evaluating the life that they had  
5 when you looked at those findings?

6 And, you can answer that in a minute, but  
7 my point on what Sam mentioned with use of this tool  
8 is that, you know, this is a living database that has  
9 experts participating on development of the  
10 recommended templates for nearly 40 different  
11 component types, with 300 templates.

12 And, there has been a couple mentions in  
13 the NRC -- and some of the NRC inspection findings  
14 reports were licensees that applied this. It was, you  
15 know, not really a decision on it, it's just that they  
16 have or have not applied it.

17 But, when I look at the RIS, it certainly  
18 seems like that the RIS is silent on this, which I  
19 understand. But, this is a very important tool that  
20 incorporates, I think, all the things that you've  
21 brought up that we need to -- the OE from the site, the  
22 OE from the industry, the vendor feedback, the vendor  
23 recommendations.

24 Because, frankly, when -- you know,  
25 there's two things in this RIS it seems to me like you've

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1 got going, the concern with the ongoing new developing  
2 credible information and then you also discussed the  
3 licensing basis and the documentation that has likely  
4 was developed 30 to 40 years or more ago and may not  
5 even be updated.

6 But, use of this EPRI PM Basis Database  
7 keeps this living and alive for licensees to use as one  
8 of the best tools that would be available to evaluate  
9 any deviations from that.

10 Would NRC consider accepting that as a  
11 technical -- as a tool to do the technical  
12 determinations or be interested in learning more about  
13 it from EPRI?

14 MR. CHERNOFF: Let me ask John to answer  
15 the first part of that question first. Then, let me  
16 speak to the second part of it.

17 So, with regard to what the -- the  
18 question, as I recall, was with regard to whether the  
19 study looked at the EPRI data implementation document?

20 MR. MEYERS: Yes, if you found in your  
21 concerns in those findings, the half where there were  
22 failures and half that were not, had you looked at all  
23 use of that database by licensees?

24 MR. THOMPSON: The short answer, no.

25 MR. MEYERS: Okay.

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1 MR. THOMPSON: We are aware of use of  
2 templates on -- through the reading of inspection  
3 reports during the INPO database searches and stuff.

4 We're also aware that the templates are  
5 specific to a component type, so you don't have general  
6 template.

7 So, when we look at a performance issue and  
8 a cause of failure and it's a relay, then you would have  
9 a specific template or maybe two templates or updated  
10 revised template.

11 We looked at some of those templates but  
12 we are also aware that the NRC doesn't endorse many of  
13 these EPRI templates. Many of these templates are new,  
14 2011, 2012 date.

15 The one you talked about on Agastat relays  
16 and some of the other more general relays is new  
17 information. So, that has --

18 And, I know in Ken's case and some of the  
19 plants involved in the TIA, that came up as the center  
20 of discussion. And, you know, we just don't have a lot  
21 of inside research into the templates.

22 MR. CHERNOFF: Sam, if I could also ask,  
23 my reading of the document, it also looked for licensees  
24 to look at their own operating experience and  
25 incorporate their own operating experience into the use

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1 and appropriateness of the use of those templates.

2 And, my recollection, again, I don't want  
3 to get into a debate about all the field issues, but  
4 my recollection is, in some cases, that may not have  
5 been done as thoroughly as maybe EPRI guidance desired  
6 it to be done.

7 MR. HARVEY: I can't speak for the  
8 individual utilities, of course, but, yes, the  
9 templates, and they're all living and they're always  
10 constantly evolving.

11 And, to the point where they're even  
12 getting into subcomponents for some of these  
13 components.

14 So, that data is very specific. It still  
15 has to be evaluated for the conditions and use at that  
16 plant.

17 MR. CHERNOFF: And, this is a good example  
18 of why we try to stay at a higher level because we want  
19 to try to draw attention to what needs to be done in  
20 this case, disposition of information, not the varied  
21 tools that are out there to do it.

22 Because there's a number of different ways  
23 to approach it that could be fine. And, we're not --  
24 you know, you're not hearing us precluding things,  
25 you're hearing us make sure that it gets looked at.

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1 That's trying to be our emphasis.

2 MR. MEYERS: Yes, the exception to that,  
3 though, is that the findings and the way the RIS, the  
4 undertone in the RIS, is that it's compliance-based  
5 with a mild environment program that, you know, you  
6 replace per the manual at X, where that's 30 -- can be  
7 30 and 40 year old information that we've moved beyond  
8 and evaluated that.

9 I'm just saying, that's kind of the read,  
10 the gist. But, without that background information in  
11 the RIS, the other point you were talking to, you were  
12 leaving it kind of vague.

13 MR. CHERNOFF: I just want to be clear, you  
14 mentioned earlier about licensing basis information  
15 that hasn't been updated, and I know that was probably,  
16 you know, mixing two thoughts.

17 Because there is a requirement to keep that  
18 licensing basis information, you know, current and up  
19 to date. I know you guys are aware of that.

20 MR. MEYERS: Right.

21 MR. CHERNOFF: And, it's a mix of  
22 licensing basis information and more detailed design  
23 basis, design basis supporting information that's out  
24 there.

25 MR. MEYERS: But, you can't update it if

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1 the vendor hasn't updated it. I mean if they don't --

2 MR. CHERNOFF: I would challenge that you  
3 could update it. It's up to your engineering  
4 organization to make those decisions and to, in fact,  
5 what --

6 MR. MEYERS: And, that's where we use the  
7 tool.

8 But, I wanted -- you talked about the  
9 licensing basis in general. And, I think the general  
10 approach, while we understand that, the lack of some  
11 background information in the draft RIS on how  
12 licensees did or did not implement commitments to the  
13 IEEE standards for the qualification program of  
14 components in mild environments and ongoing  
15 prescriptive maintenance-type programs.

16 I think that lack of discussion in there  
17 leads you to a little bit narrow focus when you read  
18 it and go down the path of what's really required by  
19 a licensee.

20 Because, they could be in complete  
21 compliance with their quality assurance program and  
22 licensing basis by use of these EPRI tools and other  
23 things versus a strict time-based replacement.

24 So, additional discussion on possibly Reg  
25 Guide 1.89, IEEE 323 and how licensees did or did not

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1 commit to those standards, I think, would be helpful  
2 in explaining how this relates and doesn't relate to  
3 time-based requirement replacement.

4 MR. CHERNOFF: I do understand the  
5 comment. I would ask if you would think about the  
6 counterpoint to that is when we talk about something  
7 and not everything, it also is subject to criticism.

8 So, for us to talk about all the potential  
9 things that might come into play in these kind of  
10 situations would be a Sisyphean task.

11 However -- and so, our decision in this,  
12 as Dave Lochbaum put it, the proposed draft RIS was to  
13 be at a higher level where we could be more certain of  
14 not leaving something out or inferring something that  
15 we didn't intend.

16 And, it is a -- we found it a difficult  
17 balance to discuss and work with. And that is part of  
18 why we're soliciting this input.

19 MR. MORRIS: Scott Morris here.

20 I think the reason it's taken us as long  
21 as it has to move from withdrawing the TIA and producing  
22 a proposed draft RIS is precisely that issue, is what's  
23 the right level of detail to be in here to convey the  
24 message we're trying to convey?

25 And, I will tell, internally, there are a

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1 lot of different opinions about that. I mean this was  
2 the lowest common denominator, I guess, perhaps.

3 MR. CHERNOFF: Or, you know, the camel,  
4 you know the horse designed by a committee at this  
5 point.

6 MR. MORRIS: Right. So --

7 MR. CHERNOFF: And, hopefully, it'll be  
8 refined by this dialogue we're having today.

9 Let's do -- Dave had --

10 MR. O'BRIEN: One more comment.

11 I want to FYI a little on -- this is Ken  
12 O'Brien.

13 I want to FYI a little bit on Harold and  
14 Scott and something I heard both from Steve and, I'm  
15 sorry, but I apologize, I forgot your name.

16 MR. HARVEY: Sam.

17 MR. O'BRIEN: Sam, thank you. I knew it  
18 was another S in there, I lost it for a second.

19 A piece that I heard here was a dialogue  
20 was the idea of using the EPRI methodology as another  
21 informing source of information as licensees try to  
22 discern for themselves what the appropriate frequency  
23 as replacement, modification, repair, whatever.

24 And, what I heard from Sam was a discussion  
25 not of gathering PM data, but instead, taking a whole

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1 -- in this case, the Agastats or maybe some other relay,  
2 taking a whole group of information from a lot of  
3 different utilities and figuring out -- taking them out  
4 of service and looking at them, saying are these still  
5 able to perform? Are these still in good shape? So  
6 on.

7 And so, there's almost an evaluative  
8 process there as opposed to looking at a preventive  
9 maintenance program which says I haven't had three  
10 failures in the last year, so therefore, I'm good.

11 That's a new piece of knowledge of putting  
12 those two together. I just want to highlight to you  
13 that that's different than I've heard it described by  
14 many licensees to me in the past as it relates to this  
15 particular issue.

16 So, it's a little different than  
17 preventative maintenance template program and a little  
18 bit more, going back to what you said earlier or the  
19 dialogue, where a vendor gives me an answer. It's  
20 service-life is X amount of time and we're beyond X  
21 amount of time. Am I using preventative maintenance?  
22 Am I using some other evaluative process? How do I go  
23 about that?

24 There's a struggle there and so, I just  
25 want to highlight that there's a nuance there that I

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1 don't know if everybody appreciates that was a little  
2 different than on just using PM data.

3 MR. HARVEY: Yes, and this is Sam Harvey  
4 again.

5 And, there's a lot that goes into this  
6 creation of those templates including OEM, vendor  
7 recommendations and other things including some of  
8 these studies that we have conducted independently.

9 So, there's a lot that goes into and a lot  
10 of different information sources and that's what I  
11 wanted to make clear. It's just not -- there hadn't  
12 been a failure in the last three years.

13 MR. O'BRIEN: Well, I'd offer, I've never  
14 heard the program described with this aspect to it and  
15 the detail as I've talked with the licensees.

16 MR. MONTGOMERY: Well, by its nature, a  
17 preventative maintenance program is preventative, it's  
18 not reactive. And, I think I hear language often times  
19 that says that, hey, you know, like what you said, if  
20 you don't have to the past three years, you know, we  
21 don't have to do anything.

22 It's this preventative program, as Steve  
23 points out, takes into account many different sources  
24 of information. The idea is to prevent failures and  
25 maximize reliability for the type of equipment for the

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1 service it's in.

2 So, I think that we ought to be asking  
3 ourselves is, is the preventive maintenance program and  
4 the staff's oversight process for the maintenance rule  
5 working for us or not? If it's not, what is the  
6 specific gap and what do we need to do to close that  
7 gap is there is one?

8 And, I think that information or that  
9 discussion, so far, I think, has been lacking. The  
10 slight uptick in findings, I can explain that probably  
11 in a couple of different ways.

12 So, again, we have data that indicates our  
13 performance trends are either flat or improving and at  
14 very high levels of reliability rates. So, I'd like  
15 to get into that sort of a discussion at some point in  
16 time because we struggle with, what's the problem we're  
17 trying to solve?

18 MR. O'BRIEN: I'll offer a history, that  
19 way I don't have to go outside the bounds of what's  
20 already on the docket. This is Ken O'Brien.

21 So, we've issued unresolved items, to at  
22 least three utilities in Region III. And, the issues  
23 that are associated with components in service beyond  
24 the vendor recommended service-lives and asking the  
25 question, so why is that okay?

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1           And, I think that's a question that  
2 reasonable to ask as an inspector, why is that okay?

3           And, I think often, we're not getting a --  
4 we've looked at, here's an engineering evaluation. We  
5 often we're an answer that's documented in the  
6 inspection report, so I'm not going outside -- that says  
7 well, we haven't had a failure.

8           For components where you're relying upon  
9 them to perform a safety function, I think we all would  
10 agree that there's probably a higher level of  
11 expectation that we all have in terms of the knowledge  
12 as to why we're taking specific actions.

13           And so, that's what we're trying to get at  
14 and that's where I think the gap that you're talking  
15 about comes to. Is it a 50.65 issue? Is it a  
16 preventative maintenance program issue?

17           Is it a Criterion 3, the program isn't  
18 there? Is it a Criterion 5, the program's there but  
19 we're not following the procedures? Or, is it a  
20 Criterion 5, the procedures are there, but they're not  
21 comprehensive enough?

22           Or, is it I forgot it completely and it's  
23 not covered or it's a subcomponent so far down that I  
24 hadn't thought about it? Or, is it OEM not aware of?  
25 Or, is it a case where I don't have the vendor's

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1 information? And, to be very frank with you, it's not  
2 something that was on our list and we don't have  
3 information to demonstrate it's good, bad or otherwise.

4 Usually, when we're coming at something of  
5 this nature, you find the vendor information is an easy  
6 one to go at. But then, you also find, as Harold and  
7 John have pointed out, we have OE that we look at, both  
8 your OE internally and our OE.

9 And then, you also have events that we look  
10 and we say, well, gee, this brings to light a new issue  
11 and we try and go out and look at that.

12 So, I think that's a little bit of where,  
13 Bruce, the gap is. We're trying to figure out how these  
14 different pieces fit together and that's why I see --  
15 I think you see, and I've heard it before, you know,  
16 the citations are different.

17 And, part of the reason, as Harold  
18 articulated, the citations are different is, often,  
19 we're trying to get at different answers. Because some  
20 licensees have phenomenal programs but didn't do a real  
21 good job of implementing it in a procedure.

22 Or, they have phenomenal programs that are  
23 implemented well in a procedure but somebody didn't  
24 follow the procedure.

25 Or, they're thinking they're covering it

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1 under X and really, it needs to be covered under Y.

2 And so, that's why I think you see a little  
3 bit of the difference and that's why I think we struggle  
4 a little bit here, as Harold pointed out earlier, that  
5 to define a very specific, singular regulatory  
6 requirement, because I think it's a host of  
7 requirements. It's a host of issues and we're trying  
8 to --

9 There's so many that it's very difficult  
10 to get them all -- all the horses in the barn at the  
11 same time, but I think that's where the regulatory gap  
12 is when we're trying to figure out the overarching  
13 answer without prescribing the absolute answer to the  
14 industry.

15 Because, if you look at the NRC's  
16 regulations, they're intended and focusing on you come  
17 up with the answer. Here's the performance that's  
18 expected. And that's part of where the problem is  
19 here, I think.

20 MR. CHERNOFF: And, that's also  
21 perspective. This is a RIS, it's not a Bulletin and  
22 it's not a generic letter. There's no inference of a  
23 significant imminent safety issue that needs, you know,  
24 immediate attention of those levels.

25 MR. O'BRIEN: Thanks for the

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1 clarification. You're absolutely correct.

2 MR. CHERNOFF: It's an improvement area  
3 that we're focused on.

4 Let me do two things because I want to make  
5 sure we give everybody an opportunity to participate.

6 Mr. Lochbaum, I think you had one comment  
7 and then let's go to the phones and see anybody on the  
8 phones has anything after that, then we'll circle back.

9 MR. LOCHBAUM: Dave Lochbaum with the  
10 Union of Concerned Scientists.

11 It was an interesting discussion on  
12 time-based replacements. My understanding of the  
13 NRC's position in the draft RIS, is if a component's  
14 within its vendor recommended service-life, you've got  
15 to meet tech specs and all of the other things, if it's  
16 beyond that, there needs to be some explanation of why  
17 that's still okay.

18 And, that could take any number of forms  
19 but, you can't just have that it hasn't failed yet as  
20 the reason why it's still -- those components are still  
21 operating.

22 Is that my -- do I have a correct understand  
23 of what the RIS is seeking to accomplish?

24 MR. CHERNOFF: I think that's a  
25 generalization that's fairly accurate that you -- if

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1 and there are a lot of ifs here, but if the information,  
2 the vendor information that you were citing, is  
3 specific to your component in your plant, that you have  
4 multiple programs that would tell you, you need to  
5 assess that.

6 And, it's not okay to say, that was a plant  
7 in a different part of the country or it was a BWR  
8 instead of a PWR.

9 It doesn't mean that that assessment needs  
10 to be complex. It doesn't preclude, for example, avail  
11 you of EPRI's activities properly used. And, I'm  
12 emphasizing the properly used because there's a long  
13 discussion about using plant-based OE and informing  
14 those templates with plant-based operating experience.

15 And, I just wanted to, you know, add  
16 emphasis. I think that's a good -- that information  
17 is good. It's very similar to what we do a lot of time  
18 when we're looking at topical reports. We approve a  
19 general concept in a topical report, but we always  
20 almost exclusively have implementation conditions.  
21 And, that's often where the rub comes in in following  
22 those implementation conditions.

23 So, I think, you know, in a broad sense,  
24 Dave, your comment is correct. What we're trying to  
25 say is those situations where that information comes

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1 through need to be addressed.

2 And, it could be the obvious choice is  
3 corrective action program, operating experience  
4 programs, another aspect of your quality assurance  
5 program to disposition those besides those.

6 All those are okay, engineering  
7 dispositions, there's a plethora of ways it could be  
8 appropriately addressed.

9 MR. LOCHBAUM: Could I ask that question  
10 in a slightly different way?

11 MR. CHERNOFF: Sure.

12 MR. LOCHBAUM: The examples that the NRC  
13 provided up to this date, but led into this, the  
14 findings or violations or however, weren't that the  
15 licensees evaluations were inadequate, is that they  
16 were just not there and the component was beyond its  
17 vendor service-life. Is that a fair statement?

18 MR. CHERNOFF: Is that accurate, John?  
19 Within the study, is that accurate?

20 MR. THOMPSON: In some cases.

21 MR. LOCHBAUM: Partial credit.

22 That's fine. There were a lot of examples  
23 in that study, so that's a fair question. I withdraw  
24 the clarifying question.

25 MR. CHERNOFF: Fred, if you could hold for

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1 just a second and we could pulse the phone bridge and  
2 see if anybody's --

3 MR. MEYERS: Can I just comment on that  
4 last point before we move off of it? I think it's  
5 important to recognize, however, I appreciate what  
6 you're saying, but under a licensee's quality assurance  
7 program, the requirement to develop maintenance  
8 schedules does not require the licensee to formally  
9 document a deviation from a vendor recommendation.

10 You have to consider many factors under  
11 your quality assurance program and vendor  
12 recommendations are one of them.

13 But, a deviation from a vendor manual,  
14 unless you've committed to it in your licensing basis,  
15 does not require a formal evaluation.

16 It's sound engineering practices and it's  
17 a determination of a maintenance schedule, but it's not  
18 a documented evaluation of why you're not doing  
19 something.

20 MR. CHERNOFF: Okay.

21 MR. MEYERS: It's an evaluation of --

22 MR. CHERNOFF: So, help me understand,  
23 every plant out there either is under a Confirmatory  
24 Order or part of their licensing basis under IC5, TMI  
25 Action Item, they have an operating experience program.

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1 Okay?

2 Now, my question is, when you get operating  
3 experience that comes in from whatever source that says  
4 this widget is only good for six years, tell me, what  
5 do you do with that?

6 MR. MEYERS: New information would be  
7 processed. If it was from a vendor, it would go through  
8 your V-TIP and then it gets ultimately entered into your  
9 CAP program, if it's applicable, just like your site  
10 OE or industry OE that we read about.

11 If it's vendor information that was  
12 already in the manual, that type of information is the  
13 type of documentation that I'm talking about that you  
14 considered in the development of your maintenance  
15 schedules, but you don't have to evaluate a deviation  
16 from it.

17 MR. CHERNOFF: When the information comes  
18 in and you put it in -- your next step was you put it  
19 in your vendor or your --

20 MR. MEYERS: If it was from a vendor, it  
21 would probably start with the V-TIP Program.

22 MR. CHERNOFF: Okay. If it was not from  
23 a vendor, it would go into your broader operating  
24 experience program? Okay.

25 And, you look at that for -- your next step

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1 was applicability? Okay. And then, what's your next  
2 step?

3 MR. MEYERS: If you determine it's  
4 applicable, it would wind its way into the CAP Program.

5 MR. CHERNOFF: Okay. And then, what do  
6 you do in the CAP Program?

7 MR. MEYERS: It would be evaluated to  
8 determine what potential impact that would have.

9 MR. CHERNOFF: That's exactly what our  
10 point is. That's simply, that's our point. It's the  
11 processes, process the information, make a decision  
12 based on processing the information.

13 MR. MEYERS: Well, but what I'm hearing,  
14 though, is you're expecting to see documented  
15 evaluations of where you have deviated from something  
16 that you got long time ago.

17 MR. CHERNOFF: What you describe is  
18 producing documentation of your consideration and your  
19 determination.

20 MR. MEYERS: On a current time going  
21 forward basis, not historical, not past.

22 MR. CHERNOFF: Yes, no one has mentioned  
23 going back and trying to look at all the equipment in  
24 the plant and producing extemporaneous contemporary  
25 documents for all the equipment that's already out

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1       there.

2                   MR. MEYERS:  But, right now, that's what  
3       the RIS would, I think, lead most people to conclude  
4       is necessary.

5                   MR. CHERNOFF:  Okay, we'll look at.  I  
6       mean that certainly was not our intend.  There is, of  
7       course, a RIS cannot create a new requirement or  
8       process.  So, that was certainly not our intent.  
9       We'll look at the wording.

10                   But, what you described is the point we're  
11       trying to get at.

12                   MR. O'BRIEN:  So, Steve, I guess I'd ask  
13       you the question as part of this purpose for us to  
14       understand.  So, if you are trying to get at the point  
15       that Harold was making, and I'll avoid using the word  
16       maintenance because I'm not sure I'm necessarily in  
17       alignment with that dialogue, but if you were trying  
18       to get to the point of dispositioning information that  
19       comes available to you from whatever venue to determine  
20       whether it has an impact and whether or not you want  
21       to continue to use a component in service in the plant.

22                   How would you propose we word that to  
23       ensure that's what's occurring?  That's what I don't  
24       -- I don't need an answer now, but that's what I'd offer  
25       you.  And, that's part of what we're trying to get at.

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1 I'd offer you -- I used to inspect at one  
2 point in time, but I'll tell you that I'm not qualified  
3 to do that anymore -- but I'd offer you Criterion 3,  
4 Criterion 5, Criterion 16, 50.65. I can quote a bunch  
5 of them off the top of my head, all of which have  
6 probably some aspect to it.

7 And, Criterion 17, I think is the one, if  
8 I'm not mistaken, would tell me I need to document  
9 things that are important to safety.

10 When I make a decision that I'm going to  
11 do something different than somebody that sold me a  
12 component or somebody that's used a component a long  
13 period of time or something else, it would seem that  
14 it would be necessary for me to document why that's okay  
15 because, otherwise, it would be difficult.

16 What we're asking here is a part of this  
17 and that's why we're looking for your insight and your  
18 feedback is, if there's a better way of describing what  
19 you just described, by the way, being led by the quiz  
20 guru over here, we've both decided he was leading the  
21 witness.

22 If there's a better way of describing that,  
23 I think that's what we're trying to look for. We're  
24 not looking to create a new requirement. We're not  
25 looking to create a different requirement. We're

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1 looking to make sure that we both have a similar  
2 understanding of how best to ensure the components that  
3 you rely upon in the plant are able to perform their  
4 intended function when called upon.

5 And, any time we get information that  
6 potentially call that into question, and that can come  
7 from a lot of different means and a lot of different  
8 measures, we want to make sure that you're properly  
9 evaluated.

10 And, any time you properly evaluate  
11 something, since it's important to safety, I think  
12 Criterion 17, if I'm correct, it's been a long time  
13 since I was allowed to inspect, but I think that's one  
14 that requires you to document activities important to  
15 safety.

16 MR. CHERNOFF: Let's go to the phones.  
17 And then, after we do that, let's take a short break.

18 MS. POPOVA: Okay. So, anyone that's on  
19 the phones that has a question or a comment, just please  
20 state your name and your company.

21 MR. FRANTZ: This is Steve Frantz from  
22 Morgan Lewis.

23 And, the RIS seems to suggest that you have  
24 to use the Corrective Action Program and you have to  
25 do operability determinations any time you receive

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1 information, for example, from a vendor.

2 I think as we've been discussing, there are  
3 other programs out there besides the Corrective Action  
4 Program and the operability determination program that  
5 can be used, such as the operating experience program,  
6 the engineering program, the maintenance program.

7 And, if you go forward with this RIS, I  
8 suggest you identify that these other programs are also  
9 available to be used to evaluate vendor information,  
10 that you don't necessarily have to use the Corrective  
11 Action Program, although that may be an option.

12 MR. CHERNOFF: Thank you.

13 I think we do not disagree that there are  
14 other programs than, I'll just say, the three that are  
15 the majority of the discussion in the RIS. So, I  
16 appreciate that comment.

17 MS. POPOVA: Are there any other questions  
18 on the line?

19 MR. BACANSKAS: Yes, this is Vincent  
20 Bacanskas. I'm Chief Engineer with Entergy Nuclear.

21 And, I wanted to offer something for Harold  
22 to take a look at. Mr. Lochbaum referred back to the  
23 active components in the license renewal rule.

24 And, I'd like to remind you that, in the  
25 early '80s through the early '90s, the NRC conducted

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1 a research program resulting in numerous NUREG  
2 documents being issues regarding nuclear plants aging  
3 research program where both accident passive  
4 components were studied with respect to failure rate,  
5 failure modes and what the operating history had been  
6 to date.

7 My understanding at the time, I authored  
8 probably five or six of those documents was that this  
9 was in support of license renewal rule for these  
10 components.

11 So, I think it would be most interesting  
12 to look at the current study and compare it to the  
13 failure rates that the NRC staff, through publication  
14 of the NUREGs already identified 30 years ago. Just  
15 a thought.

16 MR. CHERNOFF: If I could just ask a  
17 question with regard to looking at that and it being  
18 interesting, can you help me relate that to the draft  
19 document in what regard? Because we're really  
20 structured around failure rates.

21 MR. BACANSKAS: I understand. But, what  
22 you're saying is, that is the result of the operating  
23 experience study that you saw an uptick or a slight  
24 increase.

25 MR. CHERNOFF: In findings.

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1 MR. BACANSKAS: In findings, okay, as well  
2 as failures. And this kind of goes back to what Bruce  
3 Montgomery was saying as well. Have we changed the  
4 capability of the equipment to protect the health and  
5 safety of the public? Which is a thought of mine.

6 MR. CHERNOFF: Yes, just --

7 MR. BACANSKAS: And, that goes back to the  
8 failure rates. And, there's also numerous AEOD  
9 studies in the past that looked at failure rates of  
10 equipment and I think this could be correlated to vendor  
11 recommendations at the time, this hopefully addresses  
12 it.

13 So, my premise is, maybe in the small area  
14 that we're looking, there's an increase in findings,  
15 but not necessarily in any real material effect when  
16 operating the unit.

17 MR. CHERNOFF: Okay, thank you for that  
18 clarification.

19 And, just to reiterate, you know, the study  
20 did not look at failure rates of equipment or tried to  
21 ascribe any kind of a trend positive or negative to  
22 actual equipment failure rates.

23 But, I have a better understanding of what  
24 your point is. Thank you.

25 MS. POPOVA: Are there other -- any other

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1 questions online?

2 MR. WEINACHT: This is Rick Weinacht.  
3 I'm with Curtiss-Wright. I'm the Manager of the  
4 Equipment Qualification Data Bank.

5 I have three points that I'd like to make.

6 One is that, in these discussions of  
7 service-life, we seem to be omitting the corresponding  
8 service condition. A service-life cannot be assessed  
9 unless the service condition is known.

10 And so, when we find, for example, a  
11 service-life statement in a vendor document that says,  
12 an Agastat relay can only be used for 20 years. And,  
13 a 1968 document, that has no context for the operating  
14 plant because the service conditions are not the stated  
15 with that service-life.

16 The other two points I'd like to make are  
17 with regard to the draft RIS and the lack of clarity  
18 about the regulatory issues that it contends that can  
19 be summarized.

20 I think there are two areas we have the  
21 opportunity to provide some clarity. And, one is when  
22 does vendor information become part of the plant's  
23 current licensing basis or design basis documentation?

24 I think the RIS does a very poor job to  
25 provide any clarification on that issue.

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1           The second is, there seems to be a jump that  
2 when a vendor service-life exceeds it, that constitutes  
3 a nonconforming condition. And, the Commission paper  
4 pointed this out and I think that's a technical error  
5 that still exists in the draft RIS.

6           We need to recognize that exceeding a  
7 vendor recommended service-life does not in and of  
8 itself constitute a nonconforming condition.

9           MR. CHERNOFF: Okay. Could you, on that  
10 last point, I think our language actually in the draft  
11 RIS talks about the potential to be a nonconforming  
12 condition. And, if you would help us, if we've got  
13 other language in there some place, can you point us  
14 to that?

15           MR. WEINACHT: I think I could. I could  
16 provide that in formal comment.

17           MR. CHERNOFF: Or you could email it in  
18 would be fine.

19           MR. WEINACHT: Okay.

20           MR. CHERNOFF: But, our intent in the  
21 language and, I'm looking at page two of five, I happen  
22 to have it open to that, where we talk about documenting  
23 a potential nonconforming condition.

24           So, again, it depends. We are one --  
25 you're right, we don't speak directly to when things

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1 become part of the licensing basis. That was really  
2 not our intent to try to define that. And, in and of  
3 itself, you could write a long document about that.

4 But, certainly, on your last point, we  
5 wanted to be sure that our language indicates that  
6 something like that might be a nonconformance rather  
7 than try to be predictive that, in all cases, it would  
8 be.

9 So, this is that balancing act we're  
10 talking about because, depending on what it is, what's  
11 it's relied on for, where it is in the documentation,  
12 all those things matter.

13 So, if you wouldn't mind, we'd certainly  
14 appreciate -- you could use Alex's email address, but  
15 also certainly, if there's some language that similar  
16 to what you described in the item that gets published,  
17 please ensure that you follow up with some formal  
18 comments on that, too.

19 MR. WEINACHT: I'd be glad to.

20 And, just to point out one other thing  
21 regarding this whole balance. I am aware of a finding  
22 that occurred during one inspection where the licensee  
23 had a documented evaluation that demonstrated the life  
24 of a component was 27 years.

25 And, the NRC inspector provided a document

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1 that was not in the licensee's current licensing basis  
2 or even the possession of this licensee that said the  
3 item was only installed like for 20 years.

4 And, the licensee did not have an  
5 evaluation that showed why that document presented to  
6 him was invalid because they had never seen the document  
7 before.

8 But, they did have a documented  
9 engineering evaluation that demonstrated a life longer  
10 than that and they still received a fine.

11 Those are the kinds of balances where the  
12 NRC is overplaying its hand in terms of saying vendor  
13 recommended service-life takes precedent.

14 MR. CHERNOFF: Okay. And, just in the  
15 interest of time, if we can -- we've got a couple more  
16 -- at least a couple more comments on the bridge, we'll  
17 try to get those in and then take a very short break.

18 MS. POPOVA: Yes, I'm seeing a couple of  
19 comments coming through the GoTo Meeting. So, if you'd  
20 like to ask those, now would be a good time.

21 MR. BAKER: This is Kelly Baker. I'm from  
22 DC Cook. I'm the Design Engineering Manager.

23 And, I kind of inherited one of the  
24 unresolved items from the NRC design inspection. We  
25 were one of the three recipients of the TIA that has

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1 turned into this RIS draft.

2 And, our position has been approaching  
3 this has been a very difficult one because guidance that  
4 was provided in the TIA that we received seems to  
5 suggest that, what I believe someone said earlier, that  
6 since we have no basis for not performing time-based  
7 replacements on any of our relays that are installed,  
8 that we have to evaluate each one of those as a  
9 nonconformance.

10 So, basically, looking at the vendor  
11 service-life as a design requirement that we're not  
12 meeting.

13 And so, we'd have a huge evaluation  
14 required to go through the number of components we're  
15 talking about which is on the order of thousands of  
16 relays with hundreds of different individual model  
17 numbers that might be in different service conditions  
18 to evaluate whether even the nonconformance exists.

19 And, this was just basically not the way  
20 the plant was licensed. And, not a consideration at  
21 the time, even finding a service-life for many of these  
22 components is going to be extremely difficult.

23 So, that's kind of the position I'd like  
24 to present to those who are drafting this guidance.

25 My understanding from what's intended is

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1 that we only need to look at new information received  
2 on vendor service-life that would call into question  
3 any evaluations or time-based replacements we have if  
4 new information is provided that changes -- that would  
5 change our evaluation.

6 But, that's not the way it reads to us  
7 currently.

8 MR. CHERNOFF: Okay. And, obviously,  
9 Kelly, I know you appreciate that we're, you know, we're  
10 not in this forum going to go into details of the  
11 incidents that you're talking about. But, I think I  
12 understand your comment and appreciate it.

13 MR. MURPHY: Harold?

14 MR. CHERNOFF: Yes?

15 MR. MURPHY: Marty Murphy from Xcel  
16 Energy.

17 I think, and maybe this is something we can  
18 talk about when we come back and I think you've touched  
19 on it already, that the RIS is being written at a high  
20 level.

21 However, I think, you know, industry can  
22 read this as very much still aligned with what's in the  
23 TIA. And, I think we just heard that from DC Cook and  
24 I think the rest of us have that concern that this,  
25 essentially, just continues to espouse the position

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1 that's in the TIA.

2 MR. CHERNOFF: And, Marty, what I've asked  
3 is, help -- not necessarily right now in this room, but  
4 help us with some specifics of what are the points that  
5 you're seeing that are particularly problematic and,  
6 you know, make some suggestions. That's what would be  
7 most helpful.

8 MR. MEYERS: And, you know, I think the  
9 reason you have so much participation and concern in  
10 understanding this because of, you know, the potential  
11 impact with all the evaluations that was just discussed  
12 on the phone is that, in one plant that was looking at  
13 this while they had over 3,000 components under 50.49  
14 for a harsh environment, they had over 27,000  
15 components that were in a mild environment and over 200  
16 million estimated to do evaluations and replacements.

17 MR. CHERNOFF: Yes.

18 MR. MEYERS: So, there's a lot of concern  
19 and I know your message is different than what we read  
20 and it's different that what's in the TIA, but as Marty  
21 says, it's like the precedence, at least out there, that  
22 this is getting back to where you're evaluating 27,000  
23 components.

24 MR. CHERNOFF: I mean, the messages can be  
25 difficult at times, but if there is information that

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1 brings into question a broad category of equipment  
2 installed in the plants, it needs to be dealt with in  
3 disposition still. And, that could, at times, be, you  
4 know, very large.

5 I can't speak to the specifics. I wasn't  
6 involved in any of those and probably wouldn't be  
7 appropriate in this forum anyway.

8 But, we are focusing in this document on  
9 things that you become aware of, not trying to impose  
10 additional documentation on things that are already out  
11 there.

12 MR. MASHBURN: So, let me make that --

13 MR. CHERNOFF: You go ahead, absolutely,  
14 yes.

15 MR. MASHBURN: -- very clear since I've  
16 been sitting on my hands here for a moment. This is  
17 Fred Mashburn, TVA.

18 That plant that he was mentioning is rather  
19 near and dear to my heart. And, it may not be one of  
20 the cats that you were intending to herd in this TIA,  
21 but we've been talking in terms of becoming aware of  
22 information from a vendor or credible information that  
23 calls into question the capability of the components  
24 that do their safety-related function.

25 The other side of this that's near and dear

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1 to my heart is the question of, is this intended to imply  
2 that, when we go out and purchase new components, shall  
3 we say, let's say a multi--case circuit breaker is going  
4 into a safety-related component that is not in a harsh  
5 environment that we have to request the vendor to  
6 provide us with service-life information.

7 MR. CHERNOFF: Okay, very direct answer to  
8 that, it depends. It's your decision, it's your  
9 obligation to ensure the suitability of the purchased  
10 item for its intended purpose. So, you guys have to  
11 make decisions in your engineering process as to how  
12 much information you need to ensure that it can perform  
13 its function.

14 MR. MORRIS: Yes, there's an EPRI PM  
15 template that's already factored in a lot of stuff.  
16 And, you take that and you adapt it to your particular  
17 application at your particular site that, in my mind,  
18 ought to be good enough.

19 MR. MASHBURN: So, I've heard --

20 MR. CHERNOFF: And, I've heard it also  
21 before, no one at this table is saying you need to have  
22 akin to a Q-listing out the service-life of every  
23 component in the plant. That's not what we're --

24 MR. MASHBURN: Well, especially for  
25 equipment that we are purchasing or intending to

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1 purchase at that point in time.

2 MR. CHERNOFF: Right. But, your  
3 obligation is that you do enough engineering work to  
4 assure that it will function suitably for its mission.

5 MR. MASHBURN: Okay, I heard it depends,  
6 but my definition was no, not necessarily.

7 MR. CHERNOFF: I'm an old licensing guy,  
8 so it depends is like --

9 MR. MASHBURN: It sounds more like a --

10 MR. CHERNOFF: -- you get every paragraph  
11 with that. Right?

12 MR. MASHBURN: Thank you.

13 MR. CHERNOFF: Okay. We probably need to  
14 take a break shortly.

15 Okay, let's take -- I've got 2:54 on my  
16 clock and let's come back in ten minutes, 2:55, so in  
17 ten minutes, let's come back.

18 Let me remind everybody, you need escorts  
19 if you are not an NRC employee, badged employee, you  
20 need escorts to leave the room and we will come back  
21 to the people on the phone when we come back.

22 Thank you.

23 (Whereupon, the above-entitled matter  
24 went off the record at 2:55 p.m. and resumed at 3:06  
25 p.m.)

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1 MR. CHERNOFF: I appreciate everybody  
2 wrapping up the side conversations and taking seats so  
3 we can get back under way.

4 All right, so our IT assistant is going to  
5 be unmuting the bridge. Assistant is probably not an  
6 adequate term to describe his help for us today.

7 Just a couple of -- before we get back into  
8 the comments on the phone, I think it's pretty clear  
9 we've gotten a lot of good feedback and good info so  
10 far from a variety of people. This is what we wanted  
11 to do.

12 I want to remind people the focus of the  
13 document is on raising awareness and focus and  
14 attention on dispositioning of information that comes  
15 in. I think it's clear we probably won't have time to  
16 get everybody that wants to speak today the  
17 opportunity.

18 And, what I'd like to do is make sure that  
19 people please, if you don't get the opportunity or you  
20 think of something you didn't add to the dialogue, email  
21 it to Alexandra ax16 -- no?

22 MS. POPOVA: It's axp16@nrc.gov, but it's  
23 also on the Public Meeting Notice.

24 MR. CHERNOFF: So, please email any  
25 additional thoughts you have to her reasonably

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1 promptly, within a week or so would be great so that  
2 we can take those under consideration.

3 We will also add those to publically  
4 available ADAMS so that everybody can take a look at  
5 it and we'll figure out a way to do that so it's  
6 identifiable as associated with this document.

7 With that, if we can go back to the phone  
8 bridge?

9 MS. POPOVA: Any questions still on the  
10 phone?

11 MR. SAMS: This is John Sams with Ontario  
12 Power Generation.

13 MR. CHERNOFF: John --

14 MS. POPOVA: Can you speak up?

15 MR. CHERNOFF: Yes, we're having trouble  
16 hearing you, if you could speak up or move closer.

17 MR. SAMS: I'm on a headset, so hopefully  
18 it actually picks up.

19 As far as the safety-related systems, I  
20 guess the main question about the RIS here, we looked  
21 at as part of our AP-913 INPO document for equipment  
22 reliability.

23 We're looking -- some of the  
24 safety-related equipment that, you know, it's in the  
25 safety-related system but its failure really doesn't

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1 result in an, you know, really much of an impact on the  
2 safety related system.

3 And, not the special safety systems like  
4 containment, but on some of the safety support systems.

5 And, basically, the toss to, say, do the  
6 Agastat relay replacement is significant if we do it  
7 as a PM. But, if we're looking for, you know, when is  
8 the right time and we've looked through the EPRI  
9 templates and, you know, that gives the basic guideline  
10 around where we believe, you know, from an industry,  
11 we may -- are seeing failures but, you know, we now have  
12 a new tool within that that actually looks at what the  
13 risk of, you know, not doing certain time-based  
14 maintenance.

15 And, if we have an evaluation like that in  
16 our system, would that be adequate for what the  
17 inspectors would be looking for?

18 MR. CHERNOFF: Thank you.

19 I don't know that we're in a situation  
20 where we could answer that. It's a very specific  
21 question and I think you understand the components of  
22 the application, the installation and whether or not  
23 you follow through on the implementing requirements of  
24 the EPRI templates for plant specific information as  
25 well. All those things factor into that.

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1           So, I don't think we can give you, you know,  
2           it's not our purpose here to try to give specific  
3           answers.

4           But, if it runs through your processes and,  
5           like everything else you do at the plants, it's  
6           incumbent upon the licensees to follow their processes,  
7           provide sufficient documentation.

8           And, that first standard is your own  
9           self-assessment and self-scrutiny as to the adequacy  
10          of that documentation.

11          And, I know that's a lot of generalisms,  
12          but I think that's all we could do in this forum on that.

13          MS. POPOVA: Are there other questions on  
14          the line?

15          MR. CHERNOFF: Okay.

16          MR. PFABE: Can you hear me?

17          MR. CHERNOFF: Yes, go ahead.

18          MR. PFABE: I have a question along  
19          similar lines about the violation and challenges.

20          A few findings in the field and practical  
21          experience, the --

22          MS. POPOVA: Could you please state your  
23          name and the organization you work for?

24          MR. PFABE: Oh, I'm sorry. I'm sorry, let  
25          me just pull over.

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1                   This is John Pfabe, the Licensee Engineer  
2                   Consultant.

3                   A few times in the past, I've noticed an  
4                   inspector may be particularly knowledgeable or have a  
5                   particular focus in an area and he may not necessarily  
6                   accept the licensee's position on an item.

7                   It may be reasonable and we go back to the  
8                   old discussions of engineering judgment and it depends  
9                   who the engineer is, that type of thing.

10                  Is there a way of minimizing impacts or  
11                  going off on another science project or even, you know,  
12                  minimize the chance of receiving a violation on another  
13                  process because when difference of opinion, whether or  
14                  not something's strict enough or there's enough  
15                  scrutiny's been done to the studies or documentation.

16                  MR. CHERNOFF: Let me -- this is Harold  
17                  Chernoff, let me address just a piece of that and then  
18                  I think Ken O'Brien would like to address part of it.

19                  One aspect we mentioned at the very  
20                  beginning of this was, some of our findings, poor choice  
21                  of words.

22                  Some of our observations in our study were  
23                  internally focused on things that we can do better.  
24                  So, we have some actions, you can go to the study and  
25                  you can see generally what some of those are. They are

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1 directed at improving our guidance documents to our  
2 inspectors and providing some orientation and training  
3 to try to improve that activity which you're speaking  
4 of.

5 But, Ken, if you want to speak beyond that?

6 MR. O'BRIEN: Yes, I'll just kind of  
7 articulate, as in any inspection activity, our  
8 inspectors, as they go through the evolution, they have  
9 a nice open dialogue, hopefully, with the licensees and  
10 the individuals they're interacting with.

11 And then, from there, they'll propose at  
12 an exit meeting their potential findings which, as a  
13 standard statement as a part of that dialogue, are  
14 always open to management review.

15 And, that's one of the things that occurs  
16 to make sure that there's a clarity and an  
17 understanding, hopefully, a consistency between all  
18 the inspectors throughout the Agency and we act as a  
19 single voice and those things will come back to the  
20 Region for review and evaluation by management.

21 And, if there's a disagreement, we'll  
22 raise it up even higher to make sure that there's an  
23 understanding of what the particular issues are and  
24 that we're being consistent across the Agency.

25 Another reason that you're seeing this

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1 dialogue here today is to try and make sure we're doing  
2 things in a singular voice with a consistent manner in  
3 seeking input from those that we regulate.

4 MR. MORRIS: Well, and in truth -- this is  
5 Scott Morris -- this is exactly what happened in this  
6 case and it went to the next level which was the Region,  
7 who was considering these issues, reached back to  
8 Headquarters and said, hey, help us. What's the right  
9 answer here? What else -- have we got it right or was  
10 there something we're missing?

11 And, so that's why Headquarters is having  
12 as part of this and why ultimately we're having this  
13 meeting.

14 (Whereupon, the above-entitled matter  
15 went off the record at 3:14 p.m.)

16 MR. PFABE: Right. And I understand that  
17 it's a great challenge, but sometimes you get differing  
18 professional opinions and then the item just drags out  
19 for a year or so. Whether it's a study or additional  
20 data has to be gathered or developed. You know, so,  
21 we're going into a new area where vendors may be going  
22 out of business that make these elite components.  
23 Similar to others in the commercial field, but the data  
24 may not be available. Sometimes the level of review  
25 may vary across different licensees or it's very costly

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1 for programs. You just -- you have a pretty good  
2 challenge ahead of you.

3 MR. MORRIS: Thank you.

4 MR. PFABE: Trying to focus this correctly  
5 going forward the next 20/40 years.

6 MR. CHERNOFF: Thanks. I think we  
7 understand this is not an easy, simple fix or  
8 necessarily a major significant problem either. It's  
9 something that we want to --

10 MR. MORRIS: Okay. I mean I think --

11 MR. CHERNOFF: -- tune and focus attention  
12 on.

13 MR. MORRIS: I think at some level maybe  
14 at its foundational level this is really operating  
15 experience 101 discussion. Is really what this is.  
16 Right. I mean it's not a whole lot more than that and  
17 we have an operating experience organization internal  
18 to the Agency who's charged with among other things to  
19 assess, you know, equipment issues, performance issue,  
20 all kinds of things and look for -- as Harold pointed  
21 out, separate the wheat from the chaff and if there's  
22 wheat, you know, what does it mean and how can we use  
23 that information to modify our inspection programs, to  
24 communicate observations to the industry, et cetera,  
25 et cetera, et cetera. So.

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1                   MR. CHERNOFF: And just to emphasize, the  
2 most important part of what we're trying to do is  
3 communicate out information. Okay. And that -- I  
4 purposely am not talking about enforcement. I'm  
5 talking about getting messages out in a broad sense so  
6 people are aware. That's the most important thing we  
7 do. The operating experience.

8                   MR. PFABE: Yes, I understand. Thank  
9 you.

10                  MS. POPOVA: Okay. So, let's go back to  
11 the room for any more questions or discussions.

12                  MR. MEYERS: This is Steve Meyers, STARS  
13 Alliance back to -- this is really operating experience  
14 and recapping that, Harold, you discussed, you know,  
15 this is really time zero going forward with credible  
16 information.

17                         And the draft RIS is silent on the 50.2  
18 discussion, design basis information that was in the  
19 TIA. So, I still just find it confusing.

20                         Is this really like time zero going forward  
21 with new credible information that's coming in or can  
22 you just discuss why this is silent on 50.2 and, you  
23 know, this old documentation that may or may not even  
24 be in your CLB? The change there.

25                         Because, again, you know, I think, the

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1 industry and the inspectors have started down this path  
2 and it sounds like you've made an adjustment here.

3 MR. CHERNOFF: Well, the -- okay.  
4 We -- 50.2 design, it's a regulatory definition. Okay.  
5 You can go in. You can look if there's additional  
6 guidance on what it means. It's a very specific subset  
7 of information within a licensing basis.

8 The important part of that is it has some  
9 additional requirements on it beyond the more broad  
10 general information. You've got the general licensing  
11 basis information which was really defined in the  
12 regulations for the first succinct definition with  
13 respect to license real rules. It being a term of art  
14 for the beginning to that point, but in license rule  
15 regulations, it was -- there's an actual definition.

16 And so, these things are all important and  
17 they classify the level of significance of particular  
18 pieces of equipment, but at the end of the day, you know,  
19 when the sun starts to set on the power plant, the  
20 important thing is that the information that came in  
21 or you found -- in other words, I don't want to  
22 overemphasize this time zero concept because a lot of  
23 times as you're doing self-assessment activities and  
24 other things, information that maybe people weren't  
25 really cognizant of but had been on site is revealed

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1 and so, you know, we're not trying to exclude that kind  
2 of a situation either.

3 But, it does not necessarily matter  
4 whether it's 50.2 or other licensing basis information  
5 or support and design basis information because your  
6 programs are designed to deal with it in a graded  
7 approach based on what it is.

8 So, that's why we felt it was more  
9 effective to talk about the main programs and as one  
10 of the previous commenters said these -- you know, the  
11 three that we focus on are not the only ones, but they're  
12 kind of the biggest ones, the broadest ones.

13 That's why we shifted that discussion a  
14 little bit. Because the recognition is within those  
15 things there's a tiered emphasis and tiered  
16 requirements already embedded into those activities.

17 MR. MEYERS: Well, do you consider the  
18 vendor maintenance owner's manual type information is  
19 50.2?

20 MR. CHERNOFF: Well, no, I can't give you  
21 that answer because it depends on the site. It depends  
22 on the equipment. It depends on -- some people have  
23 taken and made design basis documents and  
24 they've -- some people actually have  
25 incorporated -- referenced those directly into their

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1 FSARs which raises them to a licensing-based  
2 information where they may have only previously been  
3 supporting information.

4 It varies quite a bit and so, I'm just not  
5 going to try to put an exclamation point or a dot on  
6 something that's really very broad and varied across  
7 the fleets that are out there.

8 MR. O'BRIEN: So, Steve, I want to take  
9 your question and comment in a slightly different  
10 manner. So, I'm going to lead the witness here for a  
11 moment if you don't mind.

12 What I think you're asking -- no. What I  
13 think you're asking is you think it would be valuable  
14 for the Agency as a part of any RIS to articulate a  
15 perspective generically, broadly, however we might be  
16 able to as it relates to how this information you come  
17 about and how it may relate to design basis 50.2 or  
18 supporting information or the associated NEI guidance.

19 Is that a statement that you're looking  
20 for?

21 MR. MONTGOMERY: Yes. Yes, that would be  
22 very helpful. This is Bruce Montgomery.

23 I think that given where you were with  
24 the -- you're trying to communicate at a fairly high  
25 level. You said that several times.

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1                   So, when you're in that mode, I think it's  
2 best to help supplement communication with examples and  
3 I think examples that would indicate where you would  
4 believe that certain types of information relating to  
5 installed time period rose to the level of design-basis  
6 information and you saw those instances where we  
7 deficient in that area of the industry. Those types  
8 of examples whether it be CLB, design basis or Appendix  
9 B type information that should have found its way into  
10 a repair and replacement program, but didn't that would  
11 go a long ways to help us understand your position and  
12 the basis for your position.

13                   The other piece that our colleague was  
14 talking about from Sequoyah were there was a finding  
15 that they failed to establish an installed time period  
16 in equipment that was procured where one didn't  
17 previously exist. That's a concern to us because the  
18 implications of that would mean that we would take all  
19 of our safety-related equipment and then somehow  
20 establish an installed time period and retrofit it to  
21 our plans.

22                   That's not what I think you intend.

23                   MR. CHERNOFF: And you don't see anything  
24 in the RIS I don't think that infers that.

25                   MR. MONTGOMERY: So, our question would

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1 be -- and this would be really for the regions. I would  
2 presume that those specific findings would be rewritten  
3 in some fashion or even pulled.

4 MR. O'BRIEN: So, it's an interesting  
5 question. Let me move on beyond that and I'll come back  
6 to it if you don't mind. This is Ken O'Brien again.

7 I guess I'd offer that in addition to the  
8 question that I think you're posing, your perspective  
9 would be helpful for us to understand. So, not just  
10 asking for us to help do that, but your perspective  
11 would be helpful for us to understand as it relates to  
12 50.2 design-basis information, supporting  
13 design-basis information and the application of any,  
14 I think, it's 9704.

15 A number of other things of that nature  
16 would help in that regard.

17 Generally, licensees take corrective  
18 actions to violations that we put out here. So, now,  
19 I'm going to go on to the second part.

20 So, if we issued a violation and the  
21 licensee didn't contest it, we assume that you put it  
22 in your corrective program and took actions associated  
23 with it.

24 I think the RIS here is trying to get at  
25 the broader question, the broad guidance to the

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1 industry and the agency as a whole to make sure we're  
2 all clear on what we're trying to accomplish. I think  
3 an outcome of that would be a process moving forward  
4 that's more consistent and more clear to everybody.  
5 I'm not sure of the additional value we might gain for  
6 something that was previously cited for which the  
7 licensee took corrective actions.

8 But, again, this RIS may be able to address  
9 it if you provide the information from your perspective  
10 as how those pieces apply.

11 MR. CHERNOFF: Can I ask a follow-up  
12 question, Bruce.

13 It's always problematic when you start to  
14 present examples from real data sets that are out there  
15 and we've heard several people talk about their  
16 specific issues.

17 Do you think we could accomplish a similar  
18 objective that you're asking for by using, if you would,  
19 developed examples? In other words, not from a  
20 citation or a finding, but just a here are the  
21 circumstances and this is what we think based on these  
22 circumstances.

23 Would that still be helpful or would that  
24 defeat what you're trying to get at?

25 MR. MONTGOMERY: Well, I think examples

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1 that are hypothetical, if you will, will be just as  
2 useful of examples that were from --

3 MR. CHERNOFF: Okay. Thank you for  
4 stating it much more clearly than I did.

5 MR. MONTGOMERY: But, I think the  
6 gentleman who called in who indicated -- and, of course,  
7 Sam Harvey's discussion around the EPRI databases and  
8 how those evolve into PM templates on our AP913  
9 processes.

10 The gentleman who called in to talk about  
11 how we put those together, if you really looked at those  
12 programs, our position is that is the synthesis of all  
13 the information that we get. Whether it be a vendor  
14 recommendation, testing and analysis, information from  
15 OE. They're internal or external as an industry.  
16 That's the synthesis of our conclusion and our  
17 engineering evaluation of how long something should be  
18 installed and how often we should do a replacement or  
19 refurbishment.

20 And the answer that you should have got at  
21 these stations when asked hey, it's 22 and the vendor  
22 said 20, why is that okay? It's really not the right  
23 question to ask or at least the right answer should have  
24 been our PM template -- our PM template basis indicate  
25 here's the appropriate frequency for this equipment in

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1 this environment for our plant and if we want to have  
2 a discussion around that, I think that's where the  
3 discussion should occur. That will be the industry  
4 position.

5 MR. CHERNOFF: Okay. And just to repeat  
6 that, hypothetical examples would likely help as well.  
7 Okay.

8 MR. MONTGOMERY: We can with that.

9 MR. CHERNOFF: Because it avoids a lot of  
10 issues that we get into when we start dealing with a  
11 specific example from a plant. So.

12 MR. MONTGOMERY: I think that where we can  
13 help and where I think the RIS would provide value is  
14 examples of what we consider credible and what's the  
15 opposite of credible. Maybe we can come up with better  
16 terminology and I think you're asking for that and I  
17 think also instances where we think something falls  
18 into our Criterion 5 Maintenance Programs, drawings,  
19 procedures and whatnot and those things which I think  
20 are fairly limited would put this type of information  
21 at the level of design basis for CLB information. I  
22 think you provided some examples. I think what I'm  
23 hearing is that it -- you would agree that most of this  
24 information is in our Appendix B Program that govern  
25 our maintenance programs.

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1 MR. CHERNOFF: Well, our scope of  
2 discussion is safety-related equipment. So, all of  
3 that is -- falls under Appendix B even if a small part  
4 of it might be graded approach.

5 But, and, Sam, if I could ask Sam a  
6 question. With regard to your organization's -- the  
7 template document and the frequency of updates to those  
8 documents, how are they managed?

9 MR. HARVEY: Well, let's -- we can talk  
10 about the formation of the templates because those are  
11 various things.

12 MR. CHERNOFF: And we have staff that was  
13 involved in that as well. Yes.

14 MR. HARVEY: We can -- we'd be happy to  
15 share that with you. But, the template updates are  
16 when something comes in that is credible information  
17 that says the basis for this is no longer valid.

18 So, if we got operating experience, we got  
19 a vendor service life instruction or any other type of  
20 information that says what's in our template is wrong  
21 or no longer valid, needs to be reassessed by the panel  
22 of experts from the industry, from vendors, from OEMs  
23 and et cetera, we would go back and do it.

24 Every time one of those templates is  
25 reviewed, it's got a date stamp on it and it's also got

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1 the basis of what was in that review. So, what was  
2 evaluated, what input went into it and everything else.

3 So, most of that is as we get credible  
4 information and not set on any periodicity unless the  
5 industry requests let's go back and revisit this. The  
6 new ones are all based on requests to go back and  
7 establish it. So, we may have valves. Well, now,  
8 we've got check valves and we've got some components  
9 and check valves in that template.

10 So, it's ongoing and living continuously.  
11 That's why it's on our website because it's  
12 continuously updated.

13 MR. MURPHY: Harold, a question. So,  
14 Marty Murphy, Xcel Energy.

15 With the risks and the intent to keep it  
16 at a relatively high level, how do you intend to  
17 promulgate some kind of consistent inspector guidance  
18 for us?

19 MR. CHERNOFF: That's -- I spoke to that  
20 a minute ago. We have other recommendations from our  
21 study that are focused on our internal procedures and  
22 training and that's how that'll move forward after we  
23 sort out exactly what we want our message to be.

24 MR. MURPHY: And will you share that with  
25 us so that we have a common understanding of what that

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1 is?

2 MR. MORRIS: Yes, to the extent it's in  
3 inspection procedures or manual chapters, absolutely.

4 MR. CHERNOFF: Not necessarily -- I can't  
5 speak to the -- where we end up on training, informal  
6 or formal training, I can't speak to that, but the  
7 manual chapters are out there.

8 So, as we edit and change those, it'll  
9 become publicly available.

10 MR. MORRIS: Scott Morris. I just had a  
11 question quickly for Sam.

12 This is a question just seeking  
13 understanding. Are the templates for -- your PM  
14 templates, preventive maintenance templates  
15 presumably have -- without going into a lot of minutia  
16 and telling you things you probably already know, I mean  
17 there's performance-based maintenance and then there's  
18 time-based maintenance. Right?

19 It captures both concepts? Because,  
20 you're they're both important and they're both  
21 relevant. Some things are not -- don't avail  
22 themselves to performance monitoring. Right. So,  
23 you have to have time-based maintenance. So, they were  
24 both factored in there?

25 MR. HARVEY: They're both factored in

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1 there. Absolutely.

2 MR. O'BRIEN: And this is Ken O'Brien.  
3 Time-based maintenance includes replacement?

4 MR. MORRIS: Right. That's what I meant.  
5 I'm sorry. I meant -- that's what I meant to say.  
6 Right. Right.

7 MR. O'BRIEN: This is Ken O'Brien again.  
8 I guess the reason I raised that is a lot of people when  
9 you say preventive maintenance don't necessarily think  
10 that preventive maintenance also includes replacement.

11 MR. HARVEY: It does. It absolutely  
12 does.

13 MR. O'BRIEN: Because it's not the -- it's  
14 not the components. The system you're looking at.

15 MR. MORRIS: The simplest example I like  
16 to use and it's really -- it's simple to the point of  
17 absurdity, but, you know, a light bulb, the  
18 manufacturer says it'll burn for X amount of hours.  
19 Right. And there's really no way to performance  
20 monitor it. It's always going to draw the same amount  
21 of current. It's always going to have the same amount  
22 of lumens until one day you flip a switch and it doesn't  
23 work. Right. So.

24 MR. CHERNOFF: It'll draw a different  
25 amount of current.

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1 MR. MORRIS: Okay. Yes, but in the last  
2 microsecond, you get the point.

3 MR. CHERNOFF: But, that's a good  
4 illustration of the issues.

5 MR. MORRIS: You get the point. So, I'm  
6 just trying to make sure and you've answered my  
7 question. So, I'll shut up.

8 MR. CHERNOFF: Now, that I've gotten in  
9 trouble with my boss --

10 MR. HARVEY: Well, like I said, it does and  
11 it absolutely includes -- and it includes the  
12 environmental conditions. Like is it critical  
13 high-duty cycles? No, the environment as well. So,  
14 all of those factor into it as well.

15 So, that's why the template gives you that  
16 generic and you have to evaluate it for those  
17 conditions.

18 MR. CHERNOFF: For your plant and your  
19 situation.

20 MR. HARVEY: That is correct.

21 MR. CHERNOFF: I mean you're saying the  
22 exact same thing I was saying and I know we had some  
23 discussions where it's not clear that that was done by  
24 the plant necessarily. So, it's important that they  
25 do that implementation part.

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1           MR. MEYERS: The EPRI template is more  
2 than just a sheet of paper you're looking at, you know,  
3 with some Xs in a column. It's -- I mean it provides  
4 failure modes and locations and other things that you  
5 consider. It's not just a check the box kind of  
6 application when it's correctly.

7           MR. HARVEY: It also have a vulnerability  
8 assessment tool built in it. It says if I don't do  
9 this, what does it do for my probabilities?

10          MR. CHERNOFF: And to reiterate something  
11 that was said earlier, we understand that we -- I'm in  
12 trouble with my -- yes, my boss here and my other boss.

13           But, you know, we are reasonably  
14 cognizant. We have people on staff that were also  
15 involved in development of it that we can use the  
16 resource to get into more detail as well.

17           But, it's also -- it takes application and  
18 correct application. It's not a pull it off the shelf  
19 and apply it type tool.

20           With that, we are at the end of our time  
21 and just a couple of comments. One is I really  
22 appreciate both the tone and the interaction that  
23 people have engaged with today. It's all been very  
24 pleasant. Which is the way it ought to be when we're  
25 talking about something which encourages everybody to

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1 take more of these kinds of opportunities to do this  
2 stuff.

3 That being said, I know we haven't probably  
4 gotten an opportunity to address everybody's comments  
5 and questions.

6 So, again, please if you would, thoughts  
7 you have now, thoughts you develop over the next few  
8 days in reflecting upon things that were said, please  
9 email those in to Alexandra. We'll get them into ADAMS  
10 so that everybody can see them and we will think about  
11 them in -- as we go forward in looking at this document.

12 MR. MORRIS: So, just on that note, so  
13 maybe, Alex, you could give us just quick synopsis of  
14 path forward to get us from today to the point where  
15 we think we'll have something in the Federal Register  
16 for formal comment. I know it's a prognostication  
17 that's based in guess work, but --

18 MS. POPOVA: That's a good question.

19 MR. CHERNOFF: I'm not sure that's a  
20 completely fair question.

21 MS. POPOVA: So, I assume that we're going  
22 to have something in the public register this year, but  
23 it's going to be -- that'll be based on -- so, this  
24 meeting is over, I anticipate that we're going to go  
25 back to get drafting our draft and once we have internal

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1 resolution there and alignment and we have OGC, our  
2 General Counsel, approval, that will be posted in the  
3 Federal Register.

4 MR. CHERNOFF: Can I suggest a licensing  
5 answer? When we do the meeting minutes from this  
6 meeting, we'll try to get some information in the  
7 meeting minutes about general framework of time that  
8 we're going to move forward and I think that's about  
9 the best we can do.

10 MS. POPOVA: Yes, that's about the best we  
11 can do. But --

12 MR. CHERNOFF: There are a lot of internal  
13 things that have to be worked on and we've gotten a lot  
14 of good input and we need to take some time to look at  
15 that. So.

16 MS. POPOVA: Okay. Is there anything  
17 else? You guys good?

18 MR. CHERNOFF: Any --

19 MS. POPOVA: Okay.

20 MR. CHERNOFF: If I could maybe ask Dave  
21 or Bruce if you -- you guys were kind of principal  
22 commenters. If you had anything you wanted to add at  
23 closing here.

24 MR. MONTGOMERY: Well, certainly, we  
25 appreciate the opportunity to have this discussion in

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1 advance of issuing a RIS for comments. So, it provides  
2 an extra opportunity to -- the level of interest in the  
3 room here belies how significant we think this is.

4 Of course, I think a lot of the reason why  
5 we're here is because of what we read in the original  
6 TIA and the level of detail that was in that.

7 But, there was a little discussion we just  
8 had over here that maybe as we approach this draft RIS  
9 either before or after there might be an opportunity  
10 to continue this dialogue maybe in a public forum with  
11 a workshop.

12 MS. POPOVA: So, just as a reminder, the  
13 comments that are received through the Federal Register  
14 those will be the formal comments which we will take  
15 in disposition and then formally answer.

16 During that -- after we notice the draft  
17 RIS, we will have another public meeting to discuss  
18 that.

19 MR. MONTGOMERY: Okay. Good.

20 MS. POPOVA: So, and that typically  
21 happens a couple of weeks after it's noticed in the  
22 Federal Register.

23 MR. MONTGOMERY: Thank you.

24 MS. POPOVA: Okay. Okay. So, I would  
25 like to thank everyone again.

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1 MR. LOCHBAUM: I just wanted -- Dave  
2 Lochbaum of the Union of Concerned Scientists. I just  
3 want -- I appreciate this meeting. It was very  
4 helpful.

5 I also wanted to not reiterate because I  
6 didn't say it yet, but I wanted to point out that I  
7 think -- one of the reasons I think this RIS is a  
8 good -- draft RIS is a good thing is it -- rather than  
9 waiting for the safety event, the really bad thing from  
10 happening, there is a performance trend that you're  
11 trying to address and I think it's commendable that the  
12 NRC's not waiting for the bad thing and then taking a  
13 step back. But, is trying to avoid that bad thing.  
14 So, I think that's very valuable.

15 I don't like proactive or reactive. I  
16 think it's at least lagging. There was some signs.  
17 The NRC's acting responsibly to those signs. I think  
18 that's a good thing and I appreciate your doing it.

19 MR. CHERNOFF: Thank you.

20 MS. POPOVA: Okay. All right. Thank you  
21 for that.

22 So, I would like to thank everyone for  
23 their participation today and just as you saw my message  
24 up on the screen, submit anything that hasn't been  
25 answered to my email and that will be public and yes,

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1 make sure you signed in on the sheet that went around.  
2 If you signed in, you don't need to send me an email.  
3 You will get an email from me with the meeting notes  
4 and summary and the slides which I know you're -- you  
5 know, there's not too much to them and that should  
6 happen in the next couple of weeks.

7 So, no further remarks? Okay. The  
8 meetings adjourned.

9 MR. CHERNOFF: Thank you all. Thank you  
10 on the phone.

11 (Whereupon, the above-entitled matter  
12 went off the record at 3:37 p.m.)

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